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ART IN SECONDARY EDUCATION

BY

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ART IN SECONDARY EDUCATION

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Preface

In preparing the manuscript for this book the author has endeavored to meet the needs of high school teachers and prospective teachers who would carry on an effective art program in their classes, the term "secondary education" appearing in the title of the book being interpreted to include junior and senior high schools, grades seven to twelve inclusive. He has endeavored to keep in mind throughout the book the mental and physical characteristics of secondary school pupils, teacher-pupil relationships, integration, and enrichment, balance, guidance. He has suggested some of the possibilities afforded by certain instructional material because of its richness in educational values. The book presents a plan of procedure that should be found adaptable to particular needs in any school system, large or small, urban or rural.

The purpose of the volume is not to furnish subject matter for the curriculum but rather to suggest how art experiences may be carried on effectively in school; to indicate a point of view in art education; and to present a

foundation on which teacher and pupils, working together, can build an educational structure in which generous growth in art will be assured. The chapters are intended to embrace, though in a general way only, the entire art field. Although they have been grouped under the four main headings for objectives set up by the Educational Policies Commission: (1) Self-realization, (2) Human Relationship, (3) Economic Efficiency, (4) Civic Responsibility, it is not expected that they will necessarily be read or used in this order.

The present book being to a large extent the result of cooperation on the part of teachers and prospective teachers, the author acknowledges indebtedness to students enrolled in his course in Art in Secondary Education, specific acknowledgment being made to the following students majoring in art education at the institutions designated: *The Pennsylvania State College:* Miss Hilda Eshbach, Mr. Calvin E. Folk, Miss Dorothy J. Butler, Miss Margaret L. Ide, Miss Emily D. Hourigan, Miss Mable F. Young, Miss M. Grace Wible, Mr. Leonard T. Kelley, Miss Mable R. Goss, Mr. E. Soulouff, Miss Dorothy Martin, Mr. Walter F. Weaver, Miss Enid A. Musser, Miss Bertha Filsinger, Mrs. Leonora H. Weaver, Miss Doris P. Beattie, Miss Ruth M. Knisely, Miss Elizabeth P. Hanscomb, Miss Kathryn M. Oxford, Miss Alice Hummell, Miss Louise Frost; *The Maryland Institute:* Miss Barbara Denman, Sister Editha Ward, Miss René Beard, Lieutenant G. H. Duncan, Miss Ruth Dykes, Miss Marie R. Sharpf, Miss Dorothy Kramer, Miss Madelyn P. Singer, Miss Margaret S. Smith, Mrs. H. K. Starkweather, Mr. Laurence L. Williams.

The author further acknowledges indebtedness to Mr. Roland J. McKinney, Director-in-charge, Los Angeles County Museum of History, Science and Art, and to Mr. Wesley L. Bailey, of the executive office of *Life*, for assist-

ance in procuring and selecting copy for the illustrations. Acknowledgment to others is made in each case in footnotes accompanying their contributions. The author also wishes to express appreciation and thanks to the following publications for granting permission to use in adapted form material prepared by the author and appearing first in their columns: *The Baltimore Bulletin of Education, Educational Administration and Supervision,* and *School and Society.*

LEON L. WINSLOW.

BALTIMORE, MARYLAND,
April, 1941.

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Editor's Introduction

In many parts of the world the secondary schools are the last and most formidable strongholds of educational traditionalism. The elementary teacher is forced to examine the fundamentals of his craft by the very fact that he has to start systematic education from the ground up with every beginning pupil. Except in the most hide-bound school patterns, therefore, he is under continual compulsion to arrange optimum learning activities for his pupils without regard to logical barriers or compartments of subject matter. The university professor, although often achieving great heights of academic formalism, is nevertheless occasionally liable to have his nose rubbed sharply against vital issues upon which the community wants technical assistance. He may reject the theory of the modern school while its essential practice is being forced upon him through the research and service contributions that he and his students are impelled to make by community need. Only the secondary school teacher remains well protected in many societies, shielded from

the needs of his learners by the elementary school and guarded from the impact of community needs by the university and technical school. Only the secondary school teacher in any society seems able to become so completely immersed in his routines that a whole new system for the guidance and direction of secondary-age youth can be organized and operated parallel to his school but independent of it without his being very much disturbed. Until the new system wipes his own school out of existence, he sometimes goes calmly ahead without missing one scholastic gesture or faltering one pace in his accustomed academic stride.

Yet here and there, throughout the world and particularly in the United States, this academic isolation of the secondary school teacher has been crumbling. The change in the working objectives of the secondary school—as contrasted with the verbally approved objectives—during the past twenty years constitute an educational revolution more significant and far-reaching than many that have been heralded with official trumpets. The secondary school that only a quarter of a century ago was an institution to teach "materials" and "subjects" in good, efficient ways which pupils could take or leave, and which many of them did "leave," is disappearing. Not in any spectacular fashion but rather with steady, ever-mounting pressure, it is becoming a school in which the mental and physical traits and tendencies of young people are studied by teachers whose first concern is understanding young people. It is becoming a school in which pupils' activities are directed for the personal development of each pupil. It is becoming a school where instructional materials and processes are always regarded as tools rather than as ends in themselves.

New teachers and new supervisors have appeared with these new schools. Under the older concept of education,

it would be assumed that new teachers developed the new schools and that new supervisors were responsible either by selection or by training for the new teachers. Now we are not so sure that this is the case. The modern secondary school is a resultant of many forces. These forces seem to operate most effectively on pupils, teachers, supervisors, and patrons of the school when there is a maximum of cooperation among all who are concerned in the work of the school.

The present volume is an admirable instance of this cooperative modern spirit in secondary school instruction. The author is a master of his subject; but because he is also a skilled teacher and supervisor, he outlines this manual for the teaching and supervision of art in the secondary schools as one preparing suggestions on cooperative practice to his fellow teachers and supervisors in the field. No one is better qualified than the author to describe these experiences; no one can bring a better combination of sound practice and clearly seen theory to bear on the task.

HAROLD BENJAMIN.

UNIVERSITY OF MARYLAND.

Part I

INTRODUCTION TO ART EDUCATION

What Art Education Means

Chapter I

The Significance of Art Education

1. *Art, Nature, and Life*

Art in the school should be concerned with how people live and should live in their homes, under what conditions they work and should work in the factories or on the farms, how they buy and sell goods and carry on commerce in stores and markets, and how all such activities can best be carried on under artistic planning, which is another name for design. If democracy is to prevail in our country, children should be taught to live together democratically in school. It has been well said that "design laws are divine laws." We may all be artists in the way we make use of the principles of design in living. Art is taught in schools because it does so much for children as individuals, because it contributes so much to the making of better citizens. "Art is the expression of life, and if you once permit life to become expressive it tends to become artistic."

When a person becomes impatient because things do not go his way he may often, as Dewey has pointed out in his *Art as Experience,* improve the situation by putting things in order, by rearranging his books and papers or other things; he may even resort to creating something new. As he enters into the problem of bringing order out of chaos his disposition improves; he engages in art activity that results in the improvement not only of his surroundings but of himself. Incidentally, the boy or girl who engages in such forms of art work helps to make other people happier too. Thus may art be said to integrate personalities.

By definition, everything that nature has made is natural, whereas everything that man has made is *art*ificial. We are surrounded by hundreds of artificial things which we use daily and take for granted, and we might logically conclude that all these things are art did we not know that many artificial things are inartistic. Everything that man makes with his hands, with tools, or by machine may, however, be elevated to the plane of art. Anything which is made so that it best serves a worthy end is almost certain to have beauty. If in transforming the materials the work has been beautifully done, if it has had a high purpose, the result may properly be considered fine art in the sense that fine art is superior art. The dependence of art on nature for materials and for the principles of design is complete. The artist who paints a landscape picture does not paint nature as it is; rather he creates from it a composition which expresses nature as he sees it, as he feels it. Nor does the landscape architect accept nature as he finds it, but creates of it an arrangement of natural forms such as fields, trees, roadways. In our countryside and in our parks we find nature as it has been adapted through the intervention of hands, tools, machines, to the needs of man. The realization of this adaptation is a matter of art.

2. *Art and Human Needs*

Obviously the purpose of all art is to meet human needs in the best ways possible. In meeting needs, ideas take form first in the artist's mind and then in his materials. Ideas as well as materials have to be arranged, and both are often best organized at the same time. Art may begin with taking care of something beautifully, but it may end in the creation of something beautiful. The difference between an art product and one that is not artistic is a difference in its design. Genuine art products are carefully thought out or planned, skillfully formed, appropriately finished, but beyond all this is the value of the work to the young artist himself, because it must ever be kept in mind that the changes that are made are not in materials only but in himself.

Quality in many articles of merchandise is determined largely by the design that enters into their construction, yet people differ in their opinion of what is appropriate and beautiful in art products. This is how artistic taste is to be accounted for. A person who possesses good taste has many advantages over one who does not have good taste; he is able to get more out of works of art in the way of understanding and enjoyment, and he is able to select better things to wear and to live with. Fortunately, taste may be improved, and this is one of the things art education aims to do—to cultivate appreciation.

3. *Art and Effective Living*

From the earliest times people have sought to enhance the beauty of the human body through proper care and decoration. Care of the body implies cleanliness and healthful maintenance, while decoration implies suitability of the clothing and accessories worn. Both maintenance

and decoration of the body, if approached from the aesthetic side, come within the province of art education. Artistic taste is one road that leads to attractive personal appearance, to personality. Anyone conversant with the art of personal appearance is at ease in most situations because he has foreseen their art requirements, has planned in advance how to meet them successfully. He can keep things shipshape and looking well, he can keep things in repair, and he can create new things which will be good looking as well as good working. As he takes part in such activities as these he will grow in his ability to understand and use art, and thus to make the world a better place to live in.

4. *Art and the Home*

If use is properly conceived, beauty will generally take care of itself. In order to meet the requirements of good architecture, for example, a house must be planned and constructed to fulfill the requirements of both use and beauty. It must provide shelter and protection for all members of the household, a purpose which determines the size of the building, and the number, size, and arrangement of its rooms, the kinds of materials used, the processes to be employed in its construction. To meet our aesthetic needs a house that is also a home must not only be adequate, it must appear to be so. Buildings take on a new meaning once their art significance is understood. This is why architecture is included in the course of study in art.

Even prehistoric man decorated the interior of his cave with drawings. Today this urge to adorn our homes is as strong as it ever was. Interior decoration, better called interior architecture, is attained through the exercise of good taste in the selection, use, and care of everything that goes into a home. How shall the walls be finished? What should be done with the floors? What furniture should be

selected, and how should it be arranged? What pictures should be hung on the walls? Answers to these and similar questions relating to order and beauty within the home are provided in the art classes.

5. *Art and the Community*

The Renaissance city, Florence, has been referred to as "the city that art built," but even Florence was not beautiful as a whole; it remained for later generations to build cities designed to meet more appropriately the economic and aesthetic needs of their inhabitants. Commercial and economic conditions have since ancient times encouraged the concentration of populations in large cities. Although beauty has not been the aim of many of our modern city builders, it has in many instances been the inevitable result of their planning. The zoning laws of New York City have not only set aside certain districts as residential, industrial, and commercial, but, through their careful provisions for light and air, they have brought about beautiful new architectural forms. If the city of today be regarded as the forerunner of the city of tomorrow, may we not look forward with confidence to the early arrival of the city beautiful? One important aim of art education is to acquaint boys and girls with the experiments in community planning, both past and present, to encourage experiences in art which will lead to the planning of cities that shall be more beautiful than those with which we are familiar today.

But the reconstruction of our communities shall not be prescribed by a dictator. Rather, it will be the logical outgrowth of enriched experience in which artist and layman cooperate. "Many artists prefer to starve rather than live by the dictates of authority. The lowliest American prefers to work out his life for himself and resents the negation of this right. Democracy if it means anything means the fullest life for all people which can be achieved.

In a true sense art at its broadest and democracy at its best are synonymous."[1]

6. *Art Education in a Democracy*

In a democracy, equalization of educational opportunities is assured. The values of such opportunities are, however, to be measured by the contribution that they make to effective living. The educational values most often ascribed to art in a democracy are those concerned with individual growth in the control of the materials of an ever-changing world, of interests and of understandings, of feelings. Sensitiveness to and appreciation of art in all its forms is important here; advertisements, manufactured products, buildings and statues, paintings, and all other man-made things in which beauty may be attained through the meeting of human needs come in for appropriate emphasis. Such values as these make for improvement in the creative and in the recreative habits of individuals, in their use of money, in the artistic choices that they make, as well as in the care that they take of themselves and of their possessions, and in the way they employ their leisure. Other curriculum values generally attributed to art in the educational program are enrichment, unification, integration, and evaluation, all of which are suggestive of the contribution that art makes continually to integrated living. Through the services that it renders in the curriculum, art as a school subject aims to help boys and girls to live better the democratic life. In the democratic school, art must function as a way of living that is productive of emotional security; in such a school, instruction in art must concern itself with the creative and appreciative experiences of life as it is lived here and now, in the home, in the school, in

[1] D'Amico, V. E., and Others, *The Visual Arts in General Education*, A Report of the Committee on the Function of Art in General Education, p. 13, D. Appleton-Century Company, Inc., New York, 1940.

the church, in the factory, and in the market place. In the democratic school, art instruction is carried on in such a way as to meet both the general needs of the many for art appreciation and guidance, and the special needs of the few for intensive art training leading to employment in an art occupation or profession.

As pointed out by Faulkner,[1]

> Art should open to the students a world of experiences which will enlarge and enrich their living. This may be accomplished both through actual participation in creative activities with materials and through guided exposure to the works of others. On the one hand, creative work on the part of the students can be of immense value in personality development, in aiding them to develop an individual, creative philosophy of life, and at the same time, it can give them immediate insight into the creative process basic to art. On the other hand, guided contact with contemporary and historic art can sensitize students to the profound, human experiences which great sculpture and painting offer, to the stimulation and satisfactions gained from seeing and feeling fine textiles, ceramics and other objects. Through such experiences, our students may come directly into communication with great art leaders of all epochs. Few experiences can broaden and invigorate life more than those provided through a genuine appreciation of art.

7. *The School Art Program*

Realizing that neither dominant change nor dominant stability is likely to bring about improvement of living either in or outside of school, one readily sees that the art education program will have to embrace something of both these emphases. In it fancy will need to be included along with its opposite, reality, and there will have to be room in its design for both progressive and conservative elements.

[1] Faulkner, Ray, "The Place of Art in Modern Education," *The Artist Teacher*, Publication of the Art Teachers Association of the High Schools of New York City, 1940.

Its planning will need to be conceived of as an educational function, one involving and also profiting by democratic participation on the part of all the students.

The integrated art education program is, therefore, one of extremes, and at the same time one of means, a program in which tradition and reason will each come in for its share of stress, and in which there will be an equitable relationship between work and play, information and activity, production and appreciation. Democracy within the school demands that art experiences shall promote balance in living, the integration of experience.

Were it not for the works of art left us by former generations as records of high human achievement, we should today know little about history, and even less about the history of art. One argument in favor of the study of art history in the schools is that it acquaints the child with aesthetic ideals to be striven for; thus the history of art is essential both to his inspiration and to his guidance. As a vocational field, art offers unusual opportunities to the boy or girl with exceptional ability, for there is need in the world of today for superior art workers, art teachers, and artists.

In summary I can do no better than repeat Will Grant Chambers's "Art Creed." In it he says:

> I believe in art because I believe in richness of life. I believe in art education, not as another subject added to the curriculum, but as an attitude and a spirit which suffuses the whole. I believe the industries, expressing the fundamental instincts of construction, are its roots. I believe that science and history are its twin stalks, the former developing insight, and the latter giving a sense of value in all which education involves. I believe that the arts in the broadest sense of the term represent the flower of the plant, not only adding beauty and fragrance, but making possible a rich fruitage of democracy's best human institution.

These words express, far more concretely than I can, ideas that appear to be fundamental to the concept of art as an

integrating agent in education and in human personality: art education, "the flower of the plant," art education that may one day make possible "a rich fruitage of democracy's best human institution," the public school.

8. *Procedures in Art Education*

The art education program carried on in a school or school system should be planned with reference to the needs of boys and girls. It should provide for both art production and art appreciation. Production is for the most part concerned with creative expression, although some directed activity may be necessary in most of the units included in the course of study. Appreciation is often the result of activity that has been properly stimulated and motivated. The pupil comes to appreciate art through experiencing the processes of production as well as through examining critically the work of other children and of adult artists. If any distinction is to be made between art production and art appreciation, then a balance should be maintained between the two. Art in school should not be conceived as something distinct from life, but rather as experiencing life, as participating in life, as life itself. Art as a school subject must grow logically out of the child's experience taken as a whole.

It should be kept in mind that art appreciation is closely related to art consumption, since one must be able to understand and to evaluate art products in order to be able to select and use them efficiently. It is, therefore, essential that the needs of children as consumers of art products be given greater consideration in art teaching at all grade levels than obtains at the present time. Drawing and painting are not nearly so important in human life as most art course-of-study makers would have us believe. Architecture, both exterior and interior, furniture, costumes, and numerous machine-made things and products of the hand-

crafts are of vastly more significance in the lives of most of us than are drawing and painting. Courses in design for both children and adults should, therefore, involve much more work in three dimensions than they do at present. Course-of-study makers should keep in mind these relative values and should aim to maintain a proper balance between them. Art appreciation should be broadly conceived to include the understanding, selection, and use of products of all forms of visual art. Examples of these products or reproductions or pictures of them should be used extensively in art teaching to develop an awareness of art.

Wherever expression is involved, the pupil should be left free to create, but the desire to create and the choice of theme for the creative problem should be the result of systematic teaching in which a foundation of inspiration, technique, and skill has been acquired by the pupil. If left to work out his own salvation uninspired and undirected, a child cannot be expected to grow aesthetically; his art experiences must be constantly enriched and stimulated through methodical and enlightened teaching.

Instruction in design, representation, and construction should be sufficient to meet the child's needs at every level of his growth; the methods employed, those that secure the best educational results. In realizing this, no single educational method should be prescribed. Whether in drawing, for example, the child should draw from memory, from imagination, or from objects is dependent on the nature of his problem, his interests, and his needs. Since the creative ability of children varies greatly at any particular grade or age level, this requires that the methods employed at any level shall be many and varied. To prescribe drawing from imagination, from memory, or from objects exclusively, at any particular grade level, is to ignore entirely both the child and his art needs. All these methods of drawing are probably desirable at all the grade levels at

various times and under various circumstances. A similar statement could be made about the methods employed in teaching construction and design. Instruction should be adapted to individual needs arising in connection with the problems of creation and of appreciation, as they arise.

Nor does any grade level have exclusive right to a particular art principle in the course of study. Repetition, emphasis, rhythm, proportion, balance, all are important but none of them should be prescribed for exclusive treatment at any specified time. The emphasis of art principles is to be determined by the classroom situations that call for their use in connection with creative and appreciative experiences. Likewise line, mass, color, will each come in for its share of emphasis as occasion demands. This does not mean that the principles of design and the elements of art structure should not be taught; on the contrary, they should be taught, and taught more thoroughly than ever before.

Obviously it would be just as inappropriate to assign any medium to a particular grade level as to assign an art principle or art element to a particular level. The time for teaching the use of a particular art medium is when a problem calls for its use. The art possibilities of pencil, crayon, charcoal, paint, clay, plaster of Paris, linoleum, wood, textiles, plastics, are considered when occasion calls for their use in art expression and appreciation.

The teacher should not be dependent on art interests that children already have but should often stimulate children to acquire new interests which, without art instruction, they might never develop at all. The child has a right to expect that he will be introduced to new fields of interest in art, both in production and in consumption, which without teacher guidance might be forever closed to him. This does not imply that interests should be introduced that are too mature for him to comprehend.

Individual differences in art are probably just as great as they are in any other field of education. The teacher should recognize these differences and should adapt instruction to the individual child, making the methods, principles, and mediums employed fit his needs. In large classes children may be grouped according to their interests but treated as individuals within a group. The growing tendency to increase the size of art classes is to be deplored; it gives rise to social problems of grave concern to the art teacher, who is still often expected to instruct twice as many pupils as would be accepted in a class in home economics or industrial arts. And yet these classes are similar to those in art in that they require the use of materials in creative expression.

9. *This Book*

The chapters of this book are intended to acquaint you as a student more fully with the meaning of art and with the various forms that it takes in order to meet our human needs. They will acquaint you with art education and with art as an occupational field; with the part that it plays in the lives of people, in their homes and in the community made up of homes, factories, stores, churches, theaters, parks, and other places where people live their lives from day to day. They will also inform you of the part that design plays in art, and with the relationship that the study of art bears to the study of other fields such as geography, history, and English. The chapters will aim to help you better to understand how art of the present day has been a gradual development from the early attempts of man to meet his needs for useful and beautiful things. Today man's extensive wants are more generously and effectively supplied than they ever have been in the entire history of civilization. So art has helped to realize dreams,

to integrate personalities, to live more effectively and democratically.

The reading of this book should help you to know art better and to use it more extensively and well. The chapters that follow contain interesting and valuable information about art, about those who produce it and those who use it. Suggestions are offered in connection with each of the chapters which will make it possible for all to engage in art activities. Take advantage of the opportunities thus afforded for making art work in your own life.

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Chapter II

Administering Art Education

The educational values most often ascribed to art are those concerned with individual growth in the control of the materials of an ever-changing environment, of interests and of understandings, of feelings, of sensitiveness to and appreciation of art in all its forms—in advertisements, in manufactured products, in buildings and statues, in paintings, and in all other man-made things in which beauty may be attained through the meeting of human needs. Such values as these make for improvement in the recreative as well as in the creative habits of the individuals, in their use of money, and in the artistic choices that they make as well as in the care that they take of themselves and of their possessions, and in the way they employ their leisure. Through the services that it renders in the curriculum, art as a school subject aims to help boys and girls to live better the democratic life.

1. *Problems of Integration*

In life outside school, art is interpreted to embrace industrial and commercial ideas and activities as well as those concerned with painting, sculpture, and architecture. In

school, art ought also to be conceived of as something not detached from life, but rather as intimately associated with life, as experiencing, as participating in life, as life itself. To one imbued with this view of the situation the distinctions invented by those who have sought to separate and keep apart in the curriculum the various arts no longer apply. When a unity of the arts is generally recognized, art in the schools will become a broader and a vastly more significant curriculum area than it is generally considered at the present time. Then it will assume as a school subject a position of major importance, one that will embrace all the activities with materials growing out of the life of the child. Art as a school subject must grow logically out of the child's experience taken as a whole; it must embrace not only what has generally been thought of in the past as fine arts, but industrial and commercial art as well; it must help to integrate the personality of the child as well as the curriculum of the school.

Any integrated curriculum worthy of the name is also an integrative curriculum, for the effective integration of areas in the curriculum is aimed at integrative living, the integration of personality. Curriculum integration is the means that leads to this result. The attempt to organize experiences around a central core, such as social studies, history, or science, is not enough; nor is the organizing of experiences around all the aspects of a many-sided life in the local community enough. Art should be integrated in the curriculum with whatever it is integrated with in life. Therefore, the integrated curriculum cannot afford to be anything short of life itself, in which all the curriculum areas contribute to effective living. The amount of integration of art and social studies should, for example, be about the same in school as it is in life. In no instance should such integration crowd out the integration of art and each of the other areas.

2. *Problems of Scheduling*

Because of the newer conception of the place of art in the integrated educational program, instruction in the new art is gradually coming to be provided in most communities and at all grade levels. Little by little, the subject is earning recognition as a major study, especially in the high schools, while the art schools and the liberal arts colleges are beginning to accept one or more credit units earned in it in high school toward meeting entrance requirements. Colleges for the preparation of teachers are giving the courses in art and in art education a more prominent place in their curriculums than ever before, and in some of these institutions provision is being made for the student to major in art teaching.

There still seems to be no uniform practice, however, in the number of hours or periods allocated to art either in the elementary or in the secondary schools. The time given to it varies all the way from an hour a week to an hour a day. In most schools there is a tendency to have all the class periods of equal length, the time given to an academic subject such as history or English being the same as that given to art, although there is a tendency on the part of most school administrators to give a "double" period, or two consecutive single periods, to art. There is much to be said in favor of making art a major subject or a subject that meets every day even though the periods may have to be shorter. It is maintained that, since art is so important in life, it should be given a place of corresponding importance in the daily school schedule, like history and English, for example.

In elementary schools art is a constant, or required, subject. This is true also in many, perhaps in most, junior high schools. In the senior high schools, however, art is generally elective. It is recommended that even

where the subject is elective it should be offered as a major. In many of our senior high schools art is still offered as a minor subject for one or more periods a week. It is recommended that the subject be assigned the same credit as is given to other major subjects, with outside homework assignments if necessary, to comply with the prevailing practice.

3. *Problems of Administration*

Although, from the standpoint of administration, art as a school study may be regarded as coordinate with the other curriculum subjects, from the standpoints of content and of psychological method, art is somewhat, though not radically, different from the other subjects. It is concerned with the study of how human needs are satisfied through the transformation of materials, and with the concrete expression of individual thoughts and feelings to the end that life itself shall be richer and more satisfying. Obviously the experiences with information and activities are not to be restricted to a narrow field of subject matter, but should grow out of life interests and out of the school curriculum taken as a whole.

Since art education is a cooperative enterprise in which the supervisor, the principal, and the teacher all share, it is important that all three should recognize the validity of the claim of art to more time and emphasis in the weekly and daily schedules of the schools. All must be brought to realize that art involves experiences with ideas as well as with materials, that general information is necessary to furnish a background for the activities, that both technical information and directed activity are essential to the realization of superior creative work, and that consistent growth in art appreciation must be consistently provided for. All must recognize that art supervision, whether employed by an art director or supervisor or by a school

principal, must concern itself with all these things. They must recognize, too, that it is quite largely for the general educator to initiate vital school experiences out of which creative art expression will grow.

The superintendent of schools and the school principal of today see in the growing movement toward more and better art education the realization of the objectives of education in general. They see that the creative activities thus provided furnish a much-needed outlet for individual expression and consequently for self-realization, and that work of this kind may be carried on in such a way as to promote the general culture. It is for these reasons primarily that they have come to advocate that more and richer art experiences be included in the school program.

Since art is a comparatively new subject in the curriculum, however, its position there has not always been thoroughly understood by school administrators. The person responsible for art education in the school system must see to it that the function of art in the school is made perfectly clear. In large communities, the responsibility of promoting art education is centered in a director or a supervisor working directly under the superintendent of schools or his assistants. In the small community, the superintendent may have to rely on a single individual to teach art and, in addition, do such supervision as there may be time for. There is, of course, wide variation between these two extremes.

It is necessary to keep in mind the needs of art, as these must be provided for not only in the curriculum, but in the maintenance of school buildings as well. It should be the policy of the person responsible for art in the school system to see that the school architect is made and kept acquainted with the details of art needs as these apply in the art rooms and throughout the school buildings, including where possible a provision for facilities for the display of works of

adult artists and of art work done by children. All modern school buildings should be planned with these art education needs in mind. The art department should generally be located on the ground floor, preferably near the entrance of the building. Tradition to the contrary, art rooms need not necessarily have a north light.

Because of the quantities of materials used in art instruction, the rooms used by art classes should generally be half again as large as other classrooms. If more than one room is required, all the rooms should be communicating or adjoining. Daylight should be admitted from one side only by large windows placed close together as in studios, and there should be adequate electric lighting for dark days and evenings. There should be a floor plug near the back of the room for the stereopticon and motion-picture machines, and daylightproof curtains should be installed at all openings, including windows, transoms, and doors. There should be adequate bulletin boards, preferably of cork, and display cabinets with glass doors, preferably built into the walls. There should be running water in all art rooms and a large soapstone sink. Each school art department should have access to a storeroom for the necessary supplies.

4. *Problems of Organization*

In the elementary schools, the present trend is toward an integrated art program. This is probably because in most of these schools art is taught by the regular grade teacher, sometimes under special supervision. In the junior high schools, where "special" art teachers are the rule rather than the exception, integration of school subjects is more difficult to attain, yet considerable is being done with integration even in these schools. Here correlation is generally with curriculum areas rather than with subjects as such. What is done with integration at the secondary school level depends almost entirely on the effort made by the art

teacher and by other teachers to bring together art experiences, curriculum experiences outside the art field, and experiences engaged in after school hours. It is for the art teacher to see that some of these experiences have their outgrowth in creative visual expression. In the senior high schools, where differentiation of school subjects is carried still further and where subject matter is correspondingly more highly specialized, satisfactory integration is more difficult to accomplish. Much integration may be realized, however, even in the senior high school by the art teacher who is willing to make the effort to find out what is being done by his pupils in other classrooms and out of school. He may well aim to bring about the integration of art and extracurricular activities which are now stressed in most senior high schools.

The carrying on of an integrated school program demands that art be given its proportionate emphasis, which would require that it be included in the daily school program and taught as a major subject. In some schools, where an integrated program is attempted, art is not recognized as a subject of major importance. Too often "activities," "creative periods," or "social studies" have been allowed to come in and crowd art out. Activities, creative work, and social studies are important in the curriculum, but they can be truly effective only when the activities with materials growing out of them are approached from the art standpoint. The importance of art in living demands its recognition and emphasis in all schools concerned with general education.

In so far as the elementary and secondary schools are concerned, the unit of teaching in art is normally made up of two clearly conceived parts; *i.e.*, information experience and activity experience. The information experience included in the unit is both general and technical in order to assure a broad, cultural background. The general

(Photograph by William M. Rittase, Philadelphia.)

Although the senior high schools continue the exploration and guidance emphases, they also aim to offer special art training. Pupils of Hobson Pittman, Friends' Central Country Day School, Overbrook, Pa.

information is closely related to the art interests around which the unit is organized. Technical information has to do with art mediums and with aesthetic considerations. The activity experience provided for is both directed and creative in order to assure consistent pupil growth in the manipulative phases of the subject, while the directed activity is for the purpose of developing skills, use for which the individual finds in creative expression. The creative activity is, of course, entirely free from any teacher influence.

The contribution of the elementary schools to the art education program is tremendously significant. It is here that the production and appreciation of art must have their crude beginnings in the child's experience. In the junior high school instruction in art is more specifically in the direction of exploration and guidance, both educational and vocational, although appreciation is still stressed as an objective. Although the senior high schools continue the exploration and guidance emphases, they also aim to offer special art training for those pupils who will profit most by such specialization. It is suggested that these pupils pursue a four-year sequence of studies in which art is offered as a major subject.

When art is offered in the secondary school as a major subject in a special curriculum, then it is probably advisable that a course representing the entire field of art be made available as a tryout general subject in the ninth grade. The curriculum itself should, moreover, present a balanced offering of art experiences, and provision should be made, if possible, for the boys and girls enrolled in it to specialize in a single field, such as commercial art or industrial art, in the eleventh and twelfth grades.

Beyond senior high school, the college of liberal arts familiarizes its students with the heritage of the past in its relation to the present, enabling them to utilize resources with aesthetic as well as economic satisfaction, and to

enjoy art products. The college for teachers has as its aim the training not of art connoisseurs, but of teachers of art. Quite unlike either of these two types of higher institutions is the special art school; its goal, the dual purpose of educating both the consumer and the producer of art. It should be kept in mind that the kinds of higher institutions mentioned are merely types, since some liberal arts colleges offer studio training courses and most special art schools now make some provision at least for the training of art teachers.

5. *Problems of Departmentalization*

In the regular elementary schools of today, art is generally taught by the regular classroom teacher who has had little or no special training in art beyond that offered in the general normal school or teachers' college. In the departmentalized or platoon type of organization, the art teacher is sometimes, though rarely, assigned to art classes only. These teachers are generally selected from among the regular grade teachers who have been successful in teaching art, although in some school systems considerable additional training in art is required. In the junior and senior high schools, the art teacher is required to have special training in art which, in most school systems, must be equivalent to completion of a four-year curriculum or the bachelor's degree with a major in art education.

6. *Problems of Supervision*

Supervision of art education should stress the curriculum purposes to be served by art as a school subject or area of experience. It should help the teacher to attain such curriculum services as enrichment, motivation, integration, balance, unification, and evaluation. In accomplishing this, supervision should treat of such matters as the following: Improvement of Instruction; Types and Means of

Supervision; Function of the Teacher; Teacher Growth; Visiting the Teacher; Major Supervisory Procedures; Supervision and the Child; Demonstration Lessons; In-service Teacher Training including courses in Art Mediums; Conferences; Supplies and Equipment; Evaluating Teaching; Evaluating a School; The Principal as a Supervisor; Supervisory Errors; Reactions to Supervision; Research Studies in Supervision; Evaluating Supervision; Reports. Supervision of art education should aim to attain the objectives of art teaching from the standpoint of the individual child, involving such items as orderly thinking, creative expression, recreation, self-realization, appreciation, guidance, taste, and socialization.

The school principal may contribute a great deal to the success of the art work in his school. He may administer the art program efficiently, and he may even help to train his teachers to carry on instruction in art more effectively. In order to be able to do this, he should familiarize himself with the art course of study and should see that teachers use it as needed; he should see that the art schedule is observed at all times; should confer with the art supervisor as often as necessary, on general policies and on matters pertaining to teachers, pupils, instruction, supplies, standards, and exhibits; should get the advice of the supervisor in ordering equipment and supplies; should see that his teachers participate in enterprises or projects sponsored by the Department of Education, such as the testing program, poster projects, and exhibits.

The principal may help to improve art teaching also by requiring that art education be carried on as an essential and integral part of the school program; by helping the teachers to become confident and independent in their art work; by encouraging the instruction in art through commending good teaching and good art products turned out by the pupils; by observing art lessons and judging the

teaching of them on the basis of desirable and undesirable classroom procedures; by leaving with the individual teacher suggestions for improvement; and by giving art education a place in faculty meetings, according to its needs.

The principal may still further help in the realization of art standards in his building by seeing that such standards are maintained in the arrangement of written work, notebooks, and schoolwork generally; by seeing that rooms and halls and their furnishings present a clean, inviting, and beautiful appearance always; by seeing that bulletin boards are kept up to date and present an attractive, balanced, and harmonious appearance; by seeing that teachers and pupils share in improving and maintaining the efficiency and beauty of the premises, building, and equipment; by seeing that pupils' art work is recognized as such and appropriately displayed in the building at all times.

In school systems employing one or more art supervisors, supervision in this field is taken care of in a special division of the school system set up for the purpose. In small school systems which cannot afford a special division the general supervisor or the school principal, or both, must give whatever supervision of art is possible under such circumstances. This service should aim to accomplish as fully as possible the functions of supervision as they apply to the improvement of administration and instruction in the art field.

The supervision of art education, whether carried on by a special supervisor, by a general supervisor, or by a school principal, should aim to accomplish a number of particular tasks, all of which involve important educational problems which relate to the following: how the art program is to be carried on, whether as a special issue or as a component and essential part of the school organization; how art is to be

taught, whether as a special subject or as an integrated general subject, with its creative activities the outgrowth of vital experience not confined necessarily to the art field; how supplies are ordered, whether from the standpoint of formal instruction or from that of broad educational needs; how the building and classrooms are maintained, whether grounds, rooms, and halls present a clean appearance only or whether they are also attractive and beautiful; how provision is made for schoolroom decoration, whether it is overdone or whether restraint and good taste are used; how pictures and flowers are used in the school, whether merely present or carefully chosen and beautifully displayed; how bulletin boards are kept, whether their maintenance is left to chance or whether artistic restraint is exercised from day to day; how premises, buildings, and equipment are kept in condition, whether this is left entirely to school employees or is considered a matter in which the students participate; how art is taught, whether it is merely included in the school program or is productive of desirable changes in the lives of the pupils; how extracurricular activities are provided, whether arrangement for them is left to chance or there has been a carefully arranged program for such work; how the school museum is maintained, whether there are limited and haphazard displays or provision made for a more comprehensive program of good exhibits beautifully arranged and including fine examples of art or reproductions of them, and the art work of the children themselves.

Supervisors and administrators of art education should understand the purposes and procedures common to education in general and they should see that these are understood and carried out by the teachers. They should realize that the improvement of teachers and, through them, of classroom instruction is the main aim of the supervision of art, as of other subject areas; that the child's general educational growth is the main desideratum to be sought.

Supervisors should not be prejudiced in favor of any particular method of instruction, but should encourage experimentation with various methods, and they should strive to attain an integrated and balanced program of art education, one in which appreciation and creation, information and activity are properly related.

7. *Conclusion*

If the art needs of children are carefully considered by the school administrator and if a serious attempt is made to meet them from day to day, there is little doubt that the new art education will soon become a reality in communities where such a condition has heretofore been entirely unknown. Meeting the needs of both pupils and teachers in this field will require the solution of many vital problems relating to integration, scheduling, administration, organization, departmentalization, and supervision. Some of these problems have been introduced and treated briefly in the preceding paragraphs. It is hoped that what has been said will stimulate further discussion and constructive action on the part of those responsible for the administration and supervision of art education as a part of general education in public school systems.

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Chapter III

The Unit of Experience in Art

1. *Objectives of Art Education*

Art as an area of the school curriculum may be briefly defined as an organized body of experience dealing with the meeting of human needs through the transformation of materials into products. As such, art aims to enable the individual pupil to give visual form to his feelings through the use of materials; to develop standards for evaluating art work done by himself and others; to acquaint him with the evolutionary development of art in order to make him conscious of his heritage in this important field of human experience; to enable him to discuss works of art intelligently, using an adequate vocabulary; to cultivate his observation in order that he may understand the true significance of man-made things; to acquaint him with art as an organizer and enricher of experience and as the culmination of experience; to develop in him the concept of design as planning to meet life's everyday situations;

(Photograph by Christopher Schindele, Baltimore.)

The objectives of art teaching may be said to refer to the meeting of educational needs through activities that help to integrate human experience and thus to promote personality.

to encourage and stimulate him to use his imagination in solving problems as they arise; to enable him to use art for purposes of recreation to the end that integration of personality may be attained.

Art should help boys and girls to a fuller understanding of contemporary cultures through becoming familiar with their art; should help them get on better with others, developing a sense of cooperation, courtesy, leadership, sharing, helpfulness, morale; should stimulate them to desire to keep their homes as efficient and beautiful, artistic, as possible; should acquaint them with the masters and their finest works; should emphasize the importance of art in human life as it is lived here and now, with contemporary art in America.

Art promotes economic efficiency in a number of ways. High school pupils should be acquainted with the vocational significance of art in various occupations and professions; should be encouraged to explore the art field, thereby establishing effective work habits and acquiring technical skill commensurate with their needs; should be helped to buy wisely, to make profitable selections of articles of clothing, furnishings, and other products based on considerations of design. Civic responsibility, too, is greatly promoted by art. Life should be enriched through knowledge of art in its relation to the community and of the power of art in promoting better communities and better community living. Thus everyone is made aware of beauty or the lack of it in his environment and is made conscious of his own responsibility in understanding and in caring for the community.

Specifically, the objectives of art teaching relate to the meeting of educational needs through art. There are objectives of self-realization, of human relationship, of economic efficiency, and of civic responsibility, all attainable by the pupil. There are also instructional objectives, which relate

to the curriculum and are attainable by the teacher. A brief statement under each of these general classifications follows:

Objectives of Self-realization

Expression. Giving visual form to the feelings through the use of materials.

Taste. Development of standards for evaluating art work done by the pupil and by others.

History. Survey of art through the ages, to make the individual conscious of his heritage, a background for the present.

Discussion. Intelligent discussion of works of art. Use of an adequate vocabulary.

Appreciation. Understanding the aesthetic significance of all man-made things. Cultivation of observation. Sensitivity to art.

Experience. Art as the culmination of living, the organizer and enricher of experience.

Design. Design as planning; development of sensitivity to the principles of design; how they function in life situations.

Imagination. Encouraging use of the visual imagination in all creative problems.

Recreation. Provision of relaxation through the appreciation of works of art, and through the use of art materials; relieving of emotional tension; hobbies.

Individualization. Emphasis on individuality and the integration of personality through art.

Objectives of Human Relationship

International Good Will. A better understanding of the various contemporary cultures through becoming familiar with particular examples of their art.

Socialization. Getting on with others; cooperation, courtesy, leadership, sharing, helpfulness, morals.

The Home. Cultivation of desire to have homes as artistic, beautiful, and efficient as possible.

The Masters. The artist as a member of the social group. Learning to know the masters through their works.

Here and Now. The study of art as a major field of human culture, and of its subdivisions: painting, sculpture, architecture, industrial art, commercial art. Contemporary art in America.

Objectives of Economic Efficiency

Occupations. The production of art. Art in industries, in business, as a vocation. The requirements and opportunities for various jobs.

Guidance. Exploration of art. To discover, foster, and advise the gifted child regarding additional training in high school and art school in order to prepare for an art career. To call attention of all to the economic advantages of knowing about art.

Work Habits. Establishment of effective habits of work; information, techniques, skills; exploration of mediums, tools, machines.

Art Interests. Economic value of cultivating interests in art.

Meeting Needs. The usefulness of art expression. Solving of everyday problems that require a knowledge of arrangement or design.

Evaluation. The consumption of art. Making profitable selections of articles of clothing, furnishings, and other products, based on considerations of design. Buying wisely.

Objectives of Civic Responsibility

Enrichment of Life through knowing about art needs in the community, and about the fine examples of art to be seen in the community.

Civic Beauty. Awareness of beauty and the lack of it in the environment. Responsibility for these conditions.

Maintenance. Caring for things; keeping them clean and in repair: clothing, the home, the community.

Instructional Objectives

The Pupil. The use of children's work by teachers and personnel workers to gain insights into their fancies and needs on the basis of which they may be understood more sympathetically and guided more effectively.

The Field. Provide a variety of experiences so that the field will be well explored.

Articulation. Continue creative activities similar to those begun in the elementary school and prevent a gap between elementary and junior high school, to preserve creative power at crucial stage in pupil's development. Make the subject so interesting and valuable that the pupil will feel the need for continuing the subject in the senior high school and college.

Learning by Doing. Carry on the development of knowledge of art mediums through use.

Integration. Cooperate as far as possible with teachers of history, geography, science, English, and other subjects, in the enrichment of the child's ideas. Develop units based on experiences in the school, the home, the community, in life generally. Provide an integrated program of art education in so far as this is possible.

Talent. Provide a variety of art experiences in order to discover latent talent, and an enriched program for the talented and interested pupil.

Extracurricular Activities. Find out what the pupil is actually doing with his free time and help him to do these things better. Develop an interest in museum, library, excursions.

2. *Art and the Curriculum*

What is done with integration at the secondary school level depends almost entirely on the effort made by the art teacher to bring together art experiences, curriculum experiences outside the art field, and experiences engaged in after school hours; to see that all these experiences are related to, and have their outgrowth in, appropriate creative art activities. In the senior high schools, where differentiation of school subjects is carried still further and where subject matter is correspondingly more highly specialized, satisfactory integration is even more difficult to accomplish. Much integration may be realized, however, even in the senior high school by the art teacher who is willing to make the effort to find out what is being done by his pupils in other classrooms. He may also aim to bring about the integration of art and extracurricular activities which are stressed in most junior and senior high schools.

In one junior high school class a unit in "Modeling" was undertaken, which culminated in the expressed desire on the part of the class to select themes from a number of different experience areas. As themes were suggested by members of the class, the teacher made a list of them on the blackboard as follows: From junior business training—"The Typist" and "The Telephone Operator"; from science—"A Chemist at Work"; from physical education—"Basketball Game," "Ballet Practice," and "Gymnastics"; from algebra—"The Difficult Problem"; from music—

"The Glee Club"; from home economics—"A Good Housekeeper," "Sewing," and "The Cook"; from English—"Dog Team"; from extracurricular activities—"The Ice Skater," "Champions," "Cheer Leader"; from safety—"A Desperate Parent"; free choice—"The First Snow," "The Tower," and "Looking Down from a Mountaintop." Nor did these themes begin to exhaust the curricular, extracurricular, and free-choice possibilities. It so happened that no one in this particular class chose a theme from industrial arts, Latin, art, or history, other fields in which it would seem that some of the children might have been especially interested. Had the teacher first made a list on the blackboard of all the subjects included in the curriculum, recruits for other curriculum areas would probably have been forthcoming.

Art and History.[1] With the advent of writing, man was able to record what happened to him. Thus, there exists a record of Hammurabi's Code and a record of the American Declaration of Independence. How we know what we know is an important phase of history. Behind such history facts as—the Egyptians wrote in hieroglyphics, the Greeks went to war with the Persians, and prehistoric man lived in caves and made use of fire—is this matter of how we get to know these facts. These facts behind the facts are basic. For example, before the finding and interpretation of the Rosetta Stone, many of our facts about ancient Egypt were based on questionable sources. Since the sources were questionable, the facts might or might not be accurate. (In this case the Rosetta Stone brought out new sources which showed that many of the old facts were not correct.) Thus, one significant feature in the record of history is "How do we know what we know?"

Of all remains, art perhaps has helped historians most in this matter of interpreting the prehistoric period. For-

[1] Harry Bard, supervisor of history, Baltimore, Md., public schools.

tunately for man and the record of man, prehistoric art was abundant. The primitive art found in the caves at Altamira, Spain, and Fort-de-Gaume, France, revealed much about the religion and habits of prehistoric man. From this art, historians were able to piece together much about the lives of those who lived before the dawn of history.

In historic times, art has played its part in the record of history. The wall paintings in Egyptian tombs revealed much of the history of the land of the Pharaohs. The bas-reliefs in the palace of Sennacherib pictured much of the history of the Assyrians. The great archaeologist, Arthur Evans, who unearthed the art treasures at Knossos —wall paintings, plaster reliefs, stone carvings, and beautifully decorated pottery—gave to the world a history of Cretan civilization that existed as early as 3000 B.C. Ancient Greece and Rome continued to use architecture, painting, and sculpture as a means of depicting their daily habits and of recording their history.

To make the past vivid and meaningful requires that it be re-created, brought back to life. Today one may walk through the streets of Williamsburg, Va., and be back again in colonial America. A visit to the Maryland Wing in the Baltimore Museum of Art re-creates the Federal period in American history. At various places in the United States, the curtain is drawn back and life is pictured as it once was.

But it is not necessary to go to Williamsburg or to the art museum in order to re-create the past. The classroom offers a splendid environment and art is the obvious medium. For example, if the class is studying the Revolutionary War period or the post-Revolutionary period, it would be most important to re-create the man George Washington, who played an important role at that time. What did Washington look like? Can we re-create him so that he seems to be in the classroom?

Fortunately, the portraits of Washington make this possible. Much history teaching can come from a study of the Washington portraits by Gilbert Stuart, Charles Willson Peale, John Trumbull, James Sharpless, and Edward Savage. The portraits by these painters are historical primary source materials. These portraits help to re-create the man Washington. An interesting lesson with children is to have them refer to the diaries and letters of Washington and his contemporaries to learn how true to life these portrait painters have revealed the man Washington. At all times and in all countries painters have left visual records for posterity.

Cartoons, caricatures, and illustrations often add meaning to a historic point. A cartoon showing America as a melting pot adds meaning to the study of immigration in the United States. Illustrations of frontier life in early America make graphic the history of the West. Used in this way, art adds meaning to the facts of history. Pupils like to illustrate what they are learning. This is particularly true of those children who enjoy projecting themselves into the study of history. Art is a part of the record of history. It is a means of re-creating the past. It is an important phase of cultural history. It is a way of making history graphic. In summary, art is essential to history, and history to art.

Art and English.[1] An art activity may be the natural outgrowth of an English experience, or an English activity may grow out of a stimulating experience in art. Owing to the similar elements in both fields, a close correlation should not be difficult to accomplish. Both literature and composition abound in suggestive art outcomes. It is necessary, then, that the teacher of art be familiar with the English course of study and that the teacher of English be not only familiar with the art course of study but aware of

[1] Edna N. Keefer, art teacher, Baltimore, Md.

its possible outgrowths in English. A conference each term on both subjects will reveal many possibilities of integration. Furthermore, the freshly motivated enthusiasm of the class should be of value when carried from either subject to the other.

Both literature and art deal with the emotional side of life. The creative process whereby the writer expresses himself in literature is understood and reflected by the artist who illustrates his story. A good illustration made by children will result from a similar emotional understanding and interpretation of the author's purpose. Every opportunity should be utilized to impress the students with the fact that there are identical principles in each of the two fields. English, as well as art, has its dominance and subordination of character, its rhythm and balance in sentences, and its action and color in words; the two subjects are unavoidably related.

The teacher may show the class some examples of beautifully illustrated books, emphasizing the unity existing between the author's creation of characters and plot and the artist's creation of suitable illustrations. The fact that the artist has to know the story thoroughly before he can express in a picture what the writer expresses in words should be made clear. Good reading aloud at this point is one of the best ways of re-creating the unity between the picture and the printed words. For example, an effective preparation for the creative interpretation of a poem by the children is a preliminary creative reading of the poem by the teacher. The poem selected should be appropriate, be richly suggestive, and must be able to justify itself on the grounds of genuine merit. Emotional enjoyment of the poem is not complete if unknown words prevent the pupil from understanding the meaning of the whole. Therefore, the teacher may first place on the board and explain any words that might otherwise be stumbling blocks. He may

also tell the class something about the content of the poem before reading it to them. Any poem that requires too much explanation should be discarded.

Art and Music.[1] The correlative study of art and music is of great importance, since both have their roots firmly embedded in measurement, form, accent, and balance, and yet at the same time act as a stimulant upon the mind by arousing emotions and feelings. Many types of lessons can make use of music to stimulate originality in visual art through illustration, in which the child records an outward expression of his imaginings and feelings. An appreciation of the relationship between moods and colors may also be attained through such correlation.

Since one of the most difficult problems of an art course is the teaching of design, pleasing and original arrangements of abstract forms may be brought about through a music-stimulated design lesson. The integration of music and art should be promoted through many opportunities for free play of the feelings and the imagination.

Art and Physical Education.[2] Although the paths of art and physical education run side by side and often meet, teachers of these two phases of experience sometimes evidence little awareness of their kinship, common purpose, and possibilities. Fundamentally, the two are related, for both may be termed expressive activity, the urge to give, outwardly and creatively, form to one's impulses and emotions. Some purposes common to each are enjoyment, appreciation for the beauty, form, and movement of the human body (the grace, the rhythm, the timing), design, and emotional release.

The fundamental rhythms, their combinations into dance patterns, the folk song and dance, place the child intimately

[1] May R. Dixon, art teacher, Baltimore, Md., public schools.

[2] Dorothy V. Horine, assistant supervisor of health and physical education, Baltimore, Md.

in an art environment. For the joyous spirit of the dance, its freedom of expression, its wholesome means of outlet for the creative impulse make it an aesthetic experience. The games, athletics, sports, dances of man have permeated the art of centuries. We have only to turn to the sculpture, the paintings, the metalwork, the engravings, and the tapestries of the masters to see examples of this.

Art is a creative process, so also is play; both are free and active pursuits that belong to the amateur as well as the expert. When the paths of art education and physical education run side by side or actually come together, there is an additional opportunity for appreciation of the beauty that enriches both.

Art and Health.[1] The human figure or themes of human interest constitute the most appealing subject matter to many students. This is why portraiture, figure study, and group composition rank high in their preference. This being the case, the study of the human body can be motivated by art and the study of art can be motivated by health education. In appreciation lessons, the art teacher will often use the ancient Greek statues as examples. "The Discus Thrower" was the Greek ideal of manly strength. The Greeks admired the graceful, human body, and their statues still show us the ideal figure. By training, developing, and keeping clean the human body, each Greek boy and girl tried to reach this ideal.

Long ago, artists, in studying people for portraiture, realized that costume was a part of personality, like gesture, posture, speech, gait, habits, and other attributes. Costume is truly a manifestation of the total personality of the individual. Modern psychology has offered much in helping us to see these relationships. Where costume is concerned, the teacher becomes important. With his

[1] Harriet C. Parks, art teacher, Gwynns Falls Park Junior High School, Baltimore, Md.

knowledge of current trends in clothing, design, color, line, and texture, he brings a wealth of information to such solutions of aesthetic problems. In this way the student can be guided to dress appropriately and neatly, artistically. When he is dressed well and his classmates approve of him, he has more confidence in himself. Because of this, his personality should be more pleasing.

Students like to represent in their drawings the type of person they would like to be. For example, girls will draw young women with pretty faces and fine figures, while boys will draw muscular and powerful men. Let us assume that "people" is chosen as a subject to awaken the student's sensitivity to, or power to observe, characteristics of different individuals. The student might go about making sketches of various types of people in the school, home, and community.

Campaigns are sometimes carried on to clean up the community. Here, too, the teacher can take the lead in pointing out the beauty of a clean house, a clean street, a clean dooryard. The child takes pleasure in making posters to interest the public in cleaning up. Through the program of civic pride he is taught to take an interest in his school surroundings, and in this way the arrangement and care of things in the school becomes an art problem.

Art serves as a release to the child. He gradually gets a sense of independence and a desire to be self-sustaining. While he wishes to conform to a group pattern, he wishes at the same time to stand out from it through some particular ability or acquired skill. Those with native ability have this desire satisfied through the arts, but those who have special interests in other fields can still derive satisfaction from art as an avocation or hobby.

Art and Other School Subjects. Other interests in the curriculum frequently present similar opportunities for reinforcing the art program. For instance, many topics in

geography are rich in scientific value as well as significant in the art sense. The suggestions generally given in the science course of study will aid the teacher in discovering and using the possibilities of coordination in accordance with the aims and content of the other subjects. Likewise, safety education and arithmetic may be interwoven with many of the art units, to the mutual strengthening of instruction in each of these subjects.

3. *The Unit of Experience*

The aims of art teaching are to be attained through a careful consideration of pupil needs, through the determination of what subject matter should be experienced and learned, through the organization of information and activities to meet these needs, and through the carrying on of appropriate units of teaching. Normally, a unit of experience in art is made up of a number of clearly conceived parts. It should embrace information experience as well as experience with activity, the information being both general and technical, in order to assure a broad cultural background. The activity growing out of such a unit should be both directed and creative, in order to assure consistent pupil growth in the manipulative phases of the subject.

Although general information is of necessity nontechnical, the general information to be provided in any art teaching unit should be as closely related as possible to the art interests around which the unit is organized. Clues to what may constitute general information are furnished by such topics as the following, which refer to ideas that are general since they do not specifically refer to art: geography, history, English, language, reading, spelling, handwriting, literature, music, arithmetic, science, health, nature study, current events. The technical information should

have to do with technique and with aesthetic considerations. Clues to what may constitute the technical information are furnished by such words as form, line, mass, color, design, rhythm, balance, representation, lettering, construction, fitness, process, medium, technique, harmony.

Directed activity implies activity that is not creative, its purpose being, nevertheless, to develop those particular skills which will find fruition in creative expression. Clues to directed activity are found in such words and phrases as dictation, copying, demonstration, criticism, control, drill, reading, and visiting (museums, libraries, factories, stores, and other places of art interest and value). Creative activity being activity that is not directed, clues to its meaning are found in such words as freedom, originality, experiment, imagination, inspiration, emotion, expression, interpretation, evaluation, appreciation.

It is probably quite unnecessary to point out that units of experience in art should be of vital interest to boys and girls, and within their range of accomplishment, for the word "experience" should imply all this and more too. Units should provide for growth of a balanced personality and they should foster the development of artistic taste. Some examples of units that have been found satisfactory when carried on in various schools are: "Art in American Democracy," "School Activities and Art," "Stage Set for the Annual School Show," "The School Craftsman's Guild," "Art Assembly," "A School Art Newspaper," "A Marionette Show," "The School Museum," "Architecture in Our Lives." Other units are described in the chapters that follow. These are intended to show how the units described were carried on.

Attention is called to the desirability of having one dominating motive extending through the year and culminating in the presentation of a play, puppet or marionette show,

the painting of a mural, the making of a model, the preparation for and conducting of an exhibit, bazaar, or other large community enterprise.

Normal human personality being integrated, the curriculum must likewise be integrated. Whenever the broader aspects of any school study are considered, it will be realized that the integration of experience is not only possible, it is inevitable. The true purpose of integration, the promotion of a unified personality, must be kept constantly in mind if the work is to be successful. In it art must be made to contribute its share to experience as a whole. In order to accomplish this successfully, art in the school should be made to contribute its share of experience to the curriculum as a whole.

4. *The Realization of Objectives*

The objectives of art education are to be realized through the effective cooperation of administration, supervision, and teaching in which the superintendent, supervisor, principal, teacher, and pupil share. If the art program in a school is to be carried on successfully, therefore, the principal must concern himself with its direction. He should not think of the subject as special nor should he regard it as something for which he himself is not responsible. As principal, he should see to it that the philosophy underlying the art program is adequate to the needs of his school. He should see that the room, equipment, and supplies are sufficient for carrying on; should see that the art program is made to function in the curriculum, and that diversity in integration is provided for, which will involve many curriculum areas. He should see that the character and quality of information experience included and the activities undertaken are educationally valuable. In addition, he should see to it that a variety of mediums is used and that a balance

is maintained between two- and three-dimensional art products.

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Chapter IV

Why Art Is Studied in School

It may be that no boy or girl now in a particular school will become the genius in art who appears but once in a century. None may ever build a great skyscraper or design an alluring magazine cover, but all are already consumers of art: they use art and they should know how to recognize art values. With proper training in art they will be able to distinguish a thing that is good in design from one that is inferior or poor in art quality. If they buy things that are beautiful, they will add joy to the lives of many. Everyone likes to have beautiful things that are his own, and all the things that we buy should be appropriate things.

In the United States of America, since we live under a democratic form of government, schools are built and maintained with public money for the public good. Educators believe that in a democracy like ours every child should be helped to live happily in and to deal effectively with his surroundings. Most boys and girls now in school will, when they graduate, have more leisure time on their hands than their parents had, because of the shorter working hours made possible through the present use of labor-

saving machinery. What will they do with this leisure time? The study of art should help them to decide how to employ it to the best advantage.

Since education involves a series of experiences resulting in a pupil's development, the question at once arises as to what are the experiences in art which may afford him maximum educational growth. The adolescent is at a period in his life when educational influences affect him with great intensity. If personality is a combination of knowledge, skill, and character, what are the art experiences that may be expected to contribute most to his growth in relation to these factors?

Knowledge is concerned with the acquisition of information. Some of the major art experiences having to do with knowledge, and stated in terms of the pupil, are:

Solving problems arising during an art unit.

Examining fine examples of art products of various nations.

Understanding how and why appreciation is a contribution to culture.

Discriminating; using good taste in applying art principles to everyday life.

Discovering beauty in ordinary, commonplace things.

Using and enjoying museums and exhibits.

Participating in the activities of an art club.

Appreciating architecture, good design in buildings, including exteriors, interiors, and gardens.

Exercising good taste in accessories.

Becoming acquainted with important art periods.

Experiencing art principles.

Developing intellectual and appreciative interest in all lines of art work.

Designing and executing designs in the creating of practical articles and experiencing satisfaction from this activity.

Engaging in industrial processes, conscious of their relation to art.

Realizing his ability to design articles of common use.

Selecting industrial art products which meet the requirements of good taste.

Evaluating his own and others' art products.

Art experiences relating to skill in activities offer direct contributions to the pupil's growth in personality, for in attaining skill in art processes he must handle many materials which sometimes offer great resistance to his effort and demand persistence and perseverance as well as technical proficiency in handling. Some of the major experiences in terms of such skill are

Working with color as it is used in everyday life, as in furnishings, theater art.

Working accurately, reaching a level of achievement set up beforehand.

Producing pictorial composition which appeals to the aesthetic sense.

Caring for art supplies and equipment.

Caring for one's own possessions.

Forming an art exhibit.

Making posters.

Working with various materials in order to discover those in which he shows most aptitude.

Arranging attractive bulletin boards.

Choosing and selecting proper clothes for personal use; acquiring a feeling for harmony and orderly arrangement.

Awakening to resources which the environment presents.

Engaging in art activity as an emotional reaction to a real situation.

(Photograph by Herbert Gehr, LIFE Staff.)

In attaining facility in craft processes the pupil must often work with materials that offer resistance and demand persistence and perseverance.

Transforming an emotion into art expression.
Forming ideas and expressing them nonobjectively.
Appreciating work of other members of the class.
Creating beneficial changes in the environment.

The junior high school period is probably the most appropriate time for boys and girls to engage in those activities which will best promote character development. The art class affords an ideal place for this, since it is here especially that the pupil has the opportunity to develop his ability to think and plan constructively. The result of this thinking and planning is readily apparent in the production of a satisfying art object or the lack of satisfaction derived from a product below the standard of previous achievement.

Fortunately, the art class may prove to be the right place for exercising the emotional urge of the adolescent. In giving vent to his emotions

He may learn the proper selection of colors and fabrics for clothing which will best suit his personality.

He may select the type of house in which he would like to live.

He may discover which activities he will most enjoy indulging in during his work-free hours.

He may carry on his work in terms of vicarious situations which will be entirely lacking in reality. Pounding away at a piece of metal, spreading color in broad strokes on a surface, creating a mask and thereby giving vent to fear, joy, hate, or humor, all this provides an outlet for energy in which the boy or girl cannot indulge satisfyingly in any more direct way.

He will gradually come to realize that the best expressions of the feelings of artists are worth-while results of emotions properly directed and controlled by the artist himself.

A mural, stage scenery, and posters are examples of art experiences which aid the student in the development of the habit of working cooperatively with others. The type of work going on in the art classroom contributes generously to this spirit of working together. The final results reveal to him the effectiveness and power of productive group effort. The group product will often prove to him that cooperative effort achieves vastly more than an individual product. Group work should be valuable training for civic enterprises later in his life. It is through such experiences as these, related to growth in knowledge, skill, and character, that the adolescent finds his place in society.

Moreover, in the art class he has the privilege of attaining genuine culture. Instruction in history has revealed to him the attainment reached by civilizations whose cultural standards were high or low according to the character of the people and their rulers. He can observe in his imagination those who relished the better things in life, and he can realize that through this experience a finer personality may develop, one sensitive to art form wherever found. A feeling of responsibility, too, can be developed in the art class, for here are many materials and tools to be used, and finished products to be cared for. In attempting to turn out a work of art he can realize that it is his own responsibility to produce the best of which he is capable.

1. *Art for Recreation*

Provision should be made in the art education program for play as well as for work, for all work and no play will make Jack a dull boy. The things he does in his leisure time constitute his recreation. Hobbies constitute a major form of recreation, which is important for some boys and girls and should no doubt be important for all. If we do not have a hobby, we should have. Today there is a hobby for everyone but everyone has to find his own. If you like

to make things, you would perhaps find modeling or soap carving interesting. If you prefer to collect things, you might like to make a collection of reproductions of paintings, of postage stamps, beautiful glass bottles, or of something else. Art furnishes a release for pent-up emotions and, for many people and in most of its forms, it may be said to constitute an important form of recreation.

We have all seen plays and pageants with their beautiful stage settings, but comparatively few of us have ever tried to make a miniature stage ourselves. We might begin by selecting a play and then planning the scenery necessary. We might first select materials suitable and then plan the scenery and lighting effects. We might cut our characters out of cardboard. Masks or false faces have been used throughout the world for a long time. Both children and grownups wear false faces at Halloween. Making them may develop into a worth-while hobby for the person who becomes interested in this kind of activity. There are, of course, many other activities which make equally desirable and excellent hobbies—the making of marionettes and puppets, for example.

2. *Art for Practical Use*

Industrial art, the art made use of in manufacture, had its beginning with man's first attempts to form tools, weapons, utensils, and other useful articles and to make them pleasing to the eye. Today we are still trying to make objects that shall be useful and good looking at the same time. An examination of almost any piece of modern furniture should convince us that things have changed in the world since the time when use and beauty were thought to be separate entities. Simple and practical designs that fit individual needs most effectively are exemplified in the best built-in furniture as well as in the movable furniture of our times. A working knowledge of art principles will help

in selecting a well-designed and becoming suit of clothes and in choosing correct accessories to go with it. It is not how much money we spend in buying clothes that makes us attractive and well dressed, but rather how well we have selected our clothing. The United States has manufactured furniture, costumes, and automobiles that are in many ways superior in design and workmanship to those made in foreign countries because their forms exactly fit the needs of the people for whom these products were made.

"Culture that is genuine," writes Bonser,[1] "is founded upon and vitally involved in utilitarian activities. It is but the expression of these most fundamental utilitarian and social relationships in their idealistic aspects that gives us much of our most cherished art, literature, and music." The study of art is of particular use to the student in school because it ties up so closely with all of the other subjects studied, because it helps to enrich these subjects and to make them more interesting, and because it helps to bring all of the subjects closer together and thus to unify the school program and the lives of the students.

Young employed people may be greatly helped in business by knowing about art values. The salesman may use his knowledge of design to increase his sales, by calling the attention of his customers to the art values of the merchandise which it is his job to sell. Good taste of a buyer or of the manager of a store continually draws customers to the store. In many instances art values and utility values are one and the same. A jeweler or florist or even a baker will have to solve many problems that show good or bad artistic taste. To have good taste one must know the art values.

The purpose of commercial art is to make either ideas or products popular. It is used so extensively in business that

[1] Russell, J. E., and F. G. Bonser, *Industrial Education,* Teachers College, Columbia University, New York, 1912.

it has sometimes been called business art. Many of the materials used in commercial art work have beauty in themselves. For certain commercial art purposes pencil and paper are the most appropriate and beautiful mediums to use. Charcoal is softer than pencil and is therefore more appropriate for some kinds of work but charcoal does not possess chromatic color. Where color is most important transparent water color or tempera paints may be used. Students should be taught in school how to use these and many other art materials and tools and how to take care of them. Tools and materials, and sometimes processes, are referred to as art mediums.

3. *Posters to Popularize Art*

Posters may be made by pupils in school to set forth the advantages to be gained from studying art. Pupils may also make posters to advertise football, basketball, and baseball games, and other entertainments, including plays. They may make posters to advertise the cafeteria with its food products. Incidentally, making posters is an excellent activity for training in arrangement, lettering, figure drawing, and color.

A good poster will convey an idea in the flash of an eye. Consequently, a good poster artist does not crowd his poster with detail but works rather to play up the important idea. His poster should attract the eye, convince the mind, and sell the idea. The term "composition" applies to the form of the poster and the arrangement of its parts. The poster artist must have one or more points of interest in his design. There is much art in placing these centers of interest. It is suggested that the student who would design a poster first make some small layouts for the poster. He should not work the design up in detail, but should consider the problem as a whole, striving for fine spacing and proportion. He should look for different places to put the lettering—at

the top, at the bottom, or in the body of the design. Interesting ideas and a pleasing design are more important at the outset than is accurate drawing. He should not work fine detail into the illustration part of his poster.

In order that his poster may carry well, the student designer should remember to work in silhouette, selecting his best layout, enlarging it, watching the spacing continually. He should plan the lettering carefully and should remember that heavy letters will "carry" best; they can be read at a greater distance. A slogan should be chosen that will put over the selling point, and it, too, should have strong appeal. Lettering should be kept simple. The slogan should be lettered horizontally, never vertically. The general style of lettering, heights and widths, should be determined early and stunt lettering avoided. A free-hand method of placing lettering should be used, as this gives more speed in working. Top and bottom guide lines should be lightly drawn for all the lettered inscriptions. These lines should be followed closely, the student working for effect of the whole. The background should be less vivid than the lettering or illustration shown against it. Color contrast should generally be strong.

4. *School Art Assembly*

Should the class want to plan a program for a school assembly to popularize the art classes, a play may suggest itself as the most interesting and absorbing activity possible. Most art classes prefer to be creative and would much rather write their own play than try to find one which would in all probability not meet the requirements of the particular situation.

The first essential in play writing is, of course, that the play shall be well written. Like any other piece of literature, it should conform to the standards of good written composition. The next important consideration is its

suitability for the group presenting it. Last, and of great importance, the play must not be too elaborate.

At the theater or the movies, when the curtain rises or the film flashes, one generally looks at a production in which the art of the stage designer has played an important part. The play is enjoyed by the audience not only through its story and the action involved, but also through its aesthetic and decorative effects. Stage decoration includes a large number of considerations such as setting, costuming, lighting, and properties. The stage must show good design at all times. The designer for the stage must think of background, and he must think of the effect against it of moving figures in different costumes under changing lighting effects. He must think of the background and the figures as combining to form a pattern of beauty.

The stage setting must add something to the theme and to the atmosphere of the play. All the scenery in the distance, unless it be abstract, or nonobjective, will need to be painted in perspective and with a knowledge of good arrangement of lines, masses, and colors, if something pleasing and suitable for the play is to be the result. Some of the boys may prefer making real properties in the wood shop, walls with an actual door and windows and a genuine fireplace and perhaps a real bookcase filled with books.

The head designer for the stage must be careful to have all the costumes in harmony with the stage setting with which they appear; he must plan to reveal the personality of the characters in the play through the costumes they wear. Beautiful costumes employing a knowledge of fine relationships of dark and light colors may be designed but not be at all suitable, and this is only part of the problem. The costumes must be suited to the theme of the play and to the characters and they must be comfortable to wear.

Each must be correct for the time, place, and occasion for which it is to be worn in the play.

Lighting is an important matter in all stage work, not only to show up the players to advantage but also to give the required feeling of space to the stage setting. Today light is used also to suggest mood. Modern designers use lights to promote harmony of the whole setting.

Should the actors be masked? Children who wear false faces at Halloween often feel freer to act and to do stunts than they would if their faces could be seen. Some actors like to wear a mask because it makes it easier for them to act certain parts. Many young actors feel the same way. Students may make simple or elaborate masks to fit the characters in the play. The portrayal of some personalities seems to require a mask. If a mask is demanded by the character, it should be provided. Some plays require masks, while others do not. A school art assembly play might well be planned with this problem in mind.

If it is decided that masks shall be worn, the boys and girls should think about the kind of mask that the first character in the play should wear. In working up the mask, the student should watch the shape of the face, the length of the nose, and the expression of the mouth. A papier-mâché mask is the easiest to make. Clay or Plasticine will be needed, also newspaper, a piece of crinoline cloth about a foot square, some blotting paper, paste, a large pastebrush, and paints. The moist clay is pounded into a flat oval shape about 2 inches thick, 10 inches long, and 8 inches wide. The newspaper is crumpled into a ball to save clay, which is put over it and patted down to form an oval shape for the face. Some extra clay is now put on for the nose, care being exerted to get the nose on in the proper place, not too near the top of the head. The student now marks out the eyebrows and builds up the forehead, adds

the eyelids, builds up the chin, adds the lips, using a small piece of clay for the upper and another for the lower lip. He models a number of different noses and tries different eyes and mouths by working them up with the clay.

When the face has been thus formed, the clay is allowed to set, or harden, somewhat. Then a thin coat of vaseline is put over the modeled form. This facilitates the separation of the finished mask from the clay. The crinoline cloth is now wet and stretched over the mask and patted into shape. Now paste is brushed over the form and worked into all the depressions with the fingers. Nice folds are made in the crinoline cloth wherever wrinkles occur. Blotting paper is cut into long strips 1 inch wide and a strip is laid across the forehead. Another strip is made to overlap the first, still another overlapping the second. The first is laid horizontally, the second vertically, and so on, alternating the direction each time to improve the bond. The blotting paper is allowed to dry; the ball of paper is removed from the back, and the clay is carefully dug out of the mask with a knife. The edges of the mask are now trimmed and finished with adhesive tape. Little holes are cut out for the eyes and nostrils and the mask is ready for coloring with tempera water-color paint. If it is desired to decorate the mask further, even if it is for a special character, the decoration will not be too realistic. Since the masks are to be worn on the stage, the colors will show up from a distance and imagination will supply the necessary details. This means the use of strong colors, and it means also that contrasting colors should be used, red against blue-green, light against dark, strong against weak colors.

5. *Art Meets Life Needs*

"The aim of art education in the secondary school is to further the growth of individuals in rich enjoyment and

effectiveness and to encourage them to create a society where such living is possible for all."[1] Art is, as we have seen, concerned with the meeting of human needs through the use of materials. The study of art furnishes recreation for our leisure time; it is a means of expressing one's own thoughts and of releasing his feelings. A knowledge of industrial and commercial art are especially useful to boys and girls because these fields are generally regarded by employers as most practical and useful. As the high school student continues to study art he will gradually become more observing, not only of the beauties of nature such as trees and flowers, but also of the beauties of art, of paintings, statues, buildings, and even of posters and other advertisements, commercial displays, and art of the theater. The art experiences engaged in at school should help to make the student a better member of the community in which he lives.

6. *Possible Outline of Experiences*

General Information: Art for everybody everyday—Influence of democratic government on art—Art for recreation: hobbies, singing, dancing, painting, modeling, building, collecting—Art for emotional release—Art for practical use: tools, machines, weapons, utensils, furniture, clothes—Place of art in the enrichment of the school curriculum; integration of art and other subjects —Art meets needs: value of art training in various occupations.

Technical Information: Use of pencil, charcoal, water color— Use of clay and soap for modeling and carving—Starting a collection: systematic outline, aims, and objectives—Essentials for use of cardboard in construction; weight or thickness, cutting, gluing, painting—Essentials of a good poster: simplicity, attractiveness, pleasing composition, effective spacing, good color— Lettering: simplicity, style, guide lines—Arrangement of lines,

[1] D'Amico, V. E., and Others, *The Visual Arts in General Education*, A Report of the Committee on the Function of Art in General Education, pp. 17, 18, D. Appleton-Century Company, Inc., New York, 1940.

masses, colors—Stage lighting—Papier-mâché masks: clay, newspaper, cloth, blotting paper, paste, brush, paint.

Directed Activity: Study and criticism of poster exhibit—Study of collection of miniature reproductions of famous paintings—Comparison of stamp collections of class members—Short illustrated talks by members of school hobby clubs—Freehand copying of plates of lower- and upper-case alphabets, single- and double-line letters—Professional or amateur play; evaluating of costume designs, lighting effects, and properties—Visiting museum—Discussion of play being studied in English; costumes worn by people studied in history.

Creative Activity: A school art assembly—Posters: athletic contests, entertainments, plays—Miniature stage set—Papier-mâché masks—Models from soap or Plasticine—Play used in school art assembly.

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Chapter V

Experiencing Art Structure

We shall soon discover, if we have not already done so, that art is not confined to the museums but may be met in everyday life, in buildings, in the grounds around them, in interior architecture, in furniture and furnishings, in dress, and in countless articles of daily use. Whistler, an American artist, was once asked where he studied art. "Wherever I happen to be," he replied. Art may be observed practically everywhere about us. It is from nature that the artist has adopted his elements of beauty, the principles of design, and it is likewise from nature that he has drawn his chief inspirations for expression ever since time began. We have only to sit in our own dooryard, among its flowers, shrubs, and trees, or look at the sky and clouds overhead or about us in our walks and drives in the street, park, and country, to enjoy the beauty that nature provides. As we continue to make such observations, we shall discover someday that we are acquiring a new sense—the aesthetic sense, that we are beginning to see nature as an artist sees it. A flower is no longer simply a flower to us; it is something

that is interesting in material, line, mass, and color. A landscape is no longer simply fields, buildings, roadways, and sky to us; it is colors, lines, and masses that form interesting patterns. A certain familiar scene that has long seemed an ordinary place is transformed into a pattern of beautiful form.

1. *Living with Art*

We are indeed surrounded by art as well as by nature. We sit upon chairs and write at desks and dine at tables on which are china, glass, and silver, all art products. We have clocks and radios, curtains at our windows, and coverings on our floors; we wear clothing and read books and magazines, all works of art, good or otherwise. In the selection of each of these articles, and many more besides, taste or the lack of it is displayed by the person who made a choice in selecting the articles. The principles of design may not occur to us when we pick out a good-looking chair in preference to an ugly one, when we arrange the shades and hangings at the windows to give a suitable and pleasing light, or when we plant a vine to thread its way over the severe corners of the house or the garage, yet when we do such things as these we are actually playing with art. The rich colors in a rug or carpet add nothing to the actual warmth of the floor, but they do warm our feelings when we walk on it. The pictures on the wall have only negligible value in protecting the wall against heat or cold from the outside, but they often do add a great deal to the attractiveness of a room. If we should take away all these things and other things whose primary value is appeal to our eye, our homes without them would be drab, uninteresting, and far less comfortable. Even savages carved their spears and paddles, and decorated themselves with shells and feathers. Art is, therefore, a necessity and not a luxury, for things of the mind and feelings are often quite as necessary to our

happiness as are things that minister only to our material needs.

Some manufacturers are doing much these days to impress the public with beauty of line. The automobile is no longer simply a piece of machinery on wheels with which to go somewhere and come back again. Today it is often a beautiful composition of graceful lines, appropriate masses, and pleasing colors. Car owners are, as a result, becoming design conscious and are placing almost as much stress on beauty of design as on considerations of power and speed. Certain of the manufacturers are, in fact, bringing out annually such beautiful car compositions that it is hard for the automobile owner to resist the temptation to turn in his old car toward meeting the payments on a new one. The railroad locomotive is following the vogue of the automobile and the airplane, and we can now ride in beautiful streamlined trains which are vastly speedier and better looking than their predecessors.

2. *How Things Look to the Artist*

In the art of literature, Joyce Kilmer gives a unique interpretation of a tree in his poem called "Trees."[1]

It has been said that no two painters see exactly alike. Nor do any two poets, playwrights, or novelists. Nor do any two students see alike. Consider, for example, such a simple thing as a tree. We might think that a tree would be something that artists would see alike, but they do not. Walk through an art gallery someday and study the trees painted by different artists and notice how differently each artist has seen them. This is not due so much to a difference in the kinds of trees as it is to a difference in the way the artist felt toward trees. Corot used to say he liked best trees that "the birds could fly through." Rousseau

[1] From Kilmer, Joyce, with Memoir by R. C. Holiday, Doubleday, Doran & Company, Inc., New York, 1940.

seems more to express structure in his trees. He once wrote to a friend, "I watch for the sunbeam, which filters through the poplars and comes in at my window. It brings me even now the good smell of the leaves and the cry of the insects. And I can still draw from it knowledge and delight." Claude Lorrain was interested in showing the grace of trees; Nicolas Poussin, in their mass; and George Inness, in their color. Yet with all the differences of these artists in their expression, each emphasizes enough of the essentials to give us the necessary facts of the trees represented.

3. *How Things Are Represented*

A classmate is 4 inches taller than you are, yet if he is walking several feet ahead of you he appears to be exactly your height. If I see him coming away down in the next block, he may look only an inch tall. Looking along a line of telegraph and telephone poles arranged on both sides of a street or railway track, we have all doubtless noticed that the lines formed by the tops and bottoms of the poles appear gradually to come together and to give somewhat the effect of looking into a long tunnel. The point at the end of the tunnel is called the "vanishing point" for the lines that appear to come together. The point at which we stand is called the "station point." This study of representing the appearance of things is called "perspective drawing."

A baby will reach with equal confidence for a bottle of milk or the moon. We older people generally estimate distances in perspective unconsciously. The ability to do so accurately comes by experience, gradually; one is seldom born with it. We have all gone out into a field at one time or another to pick flowers and, looking in the distance, we have seen a spot where the flowers appeared thicker. After going to that spot and looking back, we noticed that the spot we just left seemed to have the most flowers, an

instance where appearance is misleading. This effect could be shown in a perspective drawing of the field. Perspective may also be studied to good advantage indoors. The chairs and the books in the rear of a room appear smaller than those directly in front of us; the back legs of a chair seem shorter than its front legs. The facts of perspective are to be observed also in the human figure and in a face, and in all other visual forms.

The word "texture" was originally applied to fabrics only, to things woven, but it is now used to refer to the surface of all material things in two ways: (1) to the structure of the material itself, that is, to the way the particles are put together, and (2) to its surface appearance, which expresses to the eye its real structure. The artist is interested for the most part in surface texture of objects.

All things, whether seen indoors or out, appear to have texture. Since we are perhaps more familiar with texture indoors, let us look out of doors at the texture of the earth, rocks, grass, trees, water, and even the sky and clouds. One of the marked differences between water and clouds is their difference of texture; the particles that go to make up both are the same, only in water they are closer together. In the painting of water, clouds, and sky, perhaps the most difficult part of the work is the representation of their texture. A sheet of water must not look like a sheet of tin; it must have the feeling of wetness, which is not an easy thing to give, but notice how this is done by an experienced artist, Winslow Homer, for example. And the clouds must not look like wood or stone. They must have the feeling of lightness and looseness. If we observe the texture of trees, we shall note how this is determined by the size, shape, and number of leaves and by the way these are distributed on the branches. For instance, large leaves tend to produce a coarse texture, while small leaves tend to create a fine texture. Most of the evergreens present a solid, heavy

texture, yet the textures of no two kinds of evergreens are exactly alike. Note, for example, the difference in texture between the three evergreens—pine, spruce, and hemlock.

4. *Color in Pictures*

Let us now think of Nature as being the mother of art. Her body is the earth with its fields, hills, rivers, and seas. Her soul we call "light." Even darkness is simply a low degree of light, for it must be conceded that the "blackest" of paints and inks reflect a small amount of light. They come and go with light, and their appearance depends entirely upon the quantity, quality, and direction of the light rays. In fact, if we stop for a moment and think about what we see, we shall realize that all we ever see in this world is light. When we look at the people and the things around us, all we really see is the light that they reflect, send back to us. Looking at the sources of light—sun, moon, stars, lighted lamps—it is direct light that we see, but looking at things around us we see indirect, or reflected, light. So a photograph of an object is a print made of the light reflected from the object and not of the object itself. As the light on the object changes, so will the photographs of it change to correspond with the changes in light.

A little picturemaking by ourselves, using a camera, would help us better to understand light effects out of doors. On a sunshiny day let us take a series of photographs of a house surrounded by trees. Let us keep the camera in the same position and place, and take the pictures about an hour apart throughout the day. What will be the result? No two of the photographs will be alike; they will differ not only in their patterns of light and dark, but also in the strength of their light, shade, and shadow contrasts.

Or, supposing we go indoors and arrange the shades of our windows at different heights; then pulling them down, first

turning on one light and then more lights. What will happen? Will things appear in the photograph as they actually are? Things as they appear to the artist rather than as they register on a photographic film or plate is the artist's way of representing them in a picture. But the artist is not confined to representing things as they actually are. He may express in his painting not what he actually sees before him but his feelings toward what he sees. He may even change the position or the shapes of objects or may leave them out of his composition entirely if he so desires. An artist may, however, use photography as a means of genuine expression, the camera being the art medium employed.

If asked to make a drawing of a ball, most of us would draw it in outline only and let it go at that, just a circle. But is that the way a ball really looks to us—like a ring? What we actually see is a round shape made up of little masses of light and dark. Just so in drawing a face. We draw it generally in outline and then put in certain lines for the eyes, nose and mouth, but is that the way we actually see a face? Imagine meeting a child in the street with a face like that! Study your own face in a mirror. You see one large flesh-colored mass more or less oval in shape, made up of smaller color masses of different sizes and shapes. But do you see lines anywhere? Yet such drawings as these may be quite satisfying to us because our imagination is able to supply the details which have been merely suggested by the lines.

Do we see any lines around objects out of doors? Really there are no outlines in nature except as these may be supplied by our imagination, and in art. Let us look at some of Rembrandt's etchings and see how much he tells us with a few simple lines. On a small piece of paper we may see an immense landscape with farm buildings and figures, animals, trees, sky, and clouds. Rembrandt rarely

drew complete outlines of the objects included in his scenes, but merely hinted at the outlines and left the rest to be filled in by our imagination. People have been looking at Rembrandt's drawings for three hundred years; thousands and thousands of remarkable drawings have been made since, but we are not yet done looking at Rembrandt's. There is life stirring in them all.

Outline drawing belongs to the earliest stage of pictorial art. When the first primitive artist had completed the outline of an object on the wall of his cave, he probably considered he had done enough. But as the art of picture-making grew and developed and he became more observing of nature forms, these outline drawings ceased to satisfy him. He then became interested in the surface of things as well as in their outlines, interested in their modeling, in the play of light and dark color over them, texture, something mere line could not portray. Thus men began to see the world in terms of masses instead of outlines, in terms of significant form.

Color is the result of the breaking apart of light into the various elements composing it. It is due to the effects of the different rays found in light. An object which reflects all the color rays equally is white, one which absorbs all the rays except the red rays is red, and one which absorbs all the rays is black. Sometime let us try to find two different kinds of leaves which exactly match each other in their greens, or of different kinds of grass, or of different flowers which exactly match each other in yellows or reds. We shall probably be surprised to find so great a variety of colors.

5. *Rhythm, or Movement*

A work of art without rhythm is like an automobile without a motor, it may look well enough in a general way, but when we get into it we go nowhere; there is no movement

created because there is nothing in it to create movement. But how is one to create movement by lines and shapes? Suppose we take a blank piece of white paper and try a little experiment. On examining the paper, there is nothing on its surface to attract the eye; but drop on it a spot of ink, anywhere. Now that we have an attraction our eyes move at once to the spot and are held there. Let us now drop another spot, anywhere on the paper. Our eyes at once begin to travel back and forth between the two spots and, presto, we have created movement. It is not an interesting movement, for there is not much of it. Let us keep on adding spots until we have a dozen or more. Now just what do our eyes do? That will depend upon the size of the spots and the relation of the spots to each other and to the whole space. If certain of the spots are related to one another by similar shape, size, or spacing, our eyes will follow the related spots in preference to those that are unrelated. If the related spots are too few or too close together, we shall not become interested in the pattern they make; but if there are enough related spots to give our eyes a chase or "merry-go-round" back to the starting point, we shall be more interested. On the other hand, if the spots are all unrelated and the movement is helter-skelter, our eyes will become bewildered and turn away. Rhythm is related movement in a design, growth from one part to another part. An artist may thus repeat parts in his design to create a feeling of movement or rhythm. The parts may be objects, lines, masses, or colors. The one thing absolutely necessary is that the parts shall be related in some such way as to lead the eye along systematically, from one part to another.

6. *Emphasis, or Stress*

In the study of English we learn that emphasis consists in laying stress on the important points in a written com-

position, which makes the points stand out from the whole. The painter of a picture may, for like emphasis, play up the leading figure, object, or motive in his picture by giving it an important position or space, or by repeating or contrasting lines, masses, or colors to make the emphasized figure stand out from the rest. Placing the principal figure or object in the foreground to increase its size through the effect of perspective and placing it by itself are other ways of creating emphasis.

We can see evidences of a violation of this on the street any day—hat, dress, hose, shoes all demanding attention at the same time. In other words, emphasis on everything is emphasis on nothing except the poor taste of the designer. This is one reason why so many paintings, buildings, and other things are tiresome to look at, because of the many parts to look at and none to center the attention on. Our eyes jump from part to part, like a bird in a hedge with nowhere to rest and be at ease. The true artist, no matter what his work may be, avoids overdoing emphasis, because he knows that it should be used sensibly and sparingly.

Balance results from the proper use of emphasis in a design, and is attained by the force exerted by one part or element against another, whether of color or of mass, or of lines, so that one force is exactly equal to another opposing it. For instance, the form of a child placed at one side of a picture may balance that of a mountain placed at the other side; the child may attract an amount of attention in the composition equal to that held by the mountain. With a strong color added, as a vivid red hat, the child would seem to outbalance the mountain. Balance is one thing we should think about continually in making pictures out of doors, whether it be with a camera or with pencil or brush.

Note, in a pansy blossom, how the small central spot of intense yellow balances the surrounding area of less intense purple, or how a spot of intense purple in the center balances

the surrounding area of less intense yellow. To secure satisfactory balance in a picture or other composition, the artist must have a feeling for good design. Such a feeling may be natural or it may be acquired by observation and study of good examples of balance in nature and in works of art.

7. *Harmony, or Agreement*

When selecting clothes we don't just buy any hat that appeals to us, without thinking of the rest of our outfit or of what we are planning to wear it with or where we are going to appear in it. It makes no difference whether we are dealing with dresses, hats, houses, or chinaware, we shall find that the principles of rhythm and balance, if properly employed, will produce the effect of beauty known as "harmony," which implies a pleasing relationship among the various parts, all of which put together constitute a whole. In looking at the stars, we are able to group them together as into constellations such as the Dipper or Orion. The same is true in articles of clothing, in house furnishings, and in other fields. The various parts must be capable of grouping themselves into some kind of organization or ensemble.

In picturemaking, unless the picture is to be nonobjective, superrealistic, or surrealistic, there should be harmony of idea, as well as of line, mass, and color. We would not paint evergreen trees in a tropical scene, nor would we decorate a chair seat with a bird form or a basket of fruit. We should always remember that our aim in design is to produce a complete whole and not just a lot of parts, although, of course, a whole must include the parts. There must be agreement among these parts; good taste demands harmony in art. If we should look at the advertisements in some of our current magazines or newspapers without referring to the manufacturer's name, we might find that

our first impression guesses correctly the character of the product advertised. The advertisement was in perfect harmony with the idea expressed, with the product advertised.

8. *Art in Seeing Art*

Often we see boys and girls wandering about an art museum or other exhibition gazing at the works of art on display, confused and unable to understand. They stop before some painting in which they feel they should be interested and then turn away disconsolate. They wander from exhibit to exhibit. There are thousands of young people who would like to enjoy the things shown in our art museums and yet who know little or nothing of how to look at such things aesthetically. To understand any work of art we must learn what there is to it, what it is all about, how its parts are put together, its significance as art. Let us look at a few paintings and see how the principles of design were used by the artists who made them.

In "Courtyard of a Dutch House," painted by Pieter de Hoogh, the immaculately clean house and its inmates have been rendered with fidelity and much domestic feeling. An interest in the effects of light is evident in the passageway of alternating light and shadow; a lighted court, another passageway, and finally a brilliantly lighted open space. This part of the composition is emphasized by placing a woman in the sunlit foreground against a darker background, with the silhouette of a second woman in the dark passage placed against a lighter background.

Vincent van Gogh's "Woman Digging Potatoes" possesses qualities which give it unusual art character for other reasons. This picture shows a bit of life with much dignity and seriousness, and great sympathy for people is manifest in the interpretation of the scene. The pattern of dark shapes against the lighter background tones is most effective. Such sensitive variation is seen in the light and

Boys and girls from a seventh grade, in making the acquaintance of a Malvina Hoffman bronze at the Los Angeles County Museum of History, Science and Art, begin to realize there is an art of contemplating as well as of producing art form.

dark in the picture that hue is suggested even though it is not actually there. Van Gogh has here made every form expressive through his skillful use of line.

In his "Portrait of Wertheimer," John Singer Sargent needed a note of red somewhere in his painting to balance a strong touch of red on the sitter's lower lip, so he put it on the tongue of the black poodle at Wertheimer's feet. The poodle would probably never have been in the picture had the artist not felt the need for that touch of red just where he finally put it.

Leonardo da Vinci's great masterpiece, "The Last Supper," is an excellent picture in which to study the attainment of harmony in a design. The picture is enclosed in a horizontal oblong and the leading lines in it carry out the idea of a horizontal composition. There are enough vertical lines to strengthen the arrangement, to add stability to it, and yet not so many as to cause confusion. The picture was intended to appear as a horizontal composition which is in harmony with the wall and the room it was intended to decorate.

"The Adoration of the Lamb," by Hubert and Jan van Eyck, is an outstanding example of emphasis gained through grouping. There is a profusion of detail in this picture and yet the details have been so carefully organized that the plan of the composition makes but a single impression. The eye is attracted to a main interest, the lamb surrounded by the circle of angels, which seems to have an added importance because of the plain space left around it. There are two balancing groups just below this on either side; these are next in importance. Although there are more people in each of these groups, they attract less attention than the central group because they are so close together that they are seen as lesser masses. The small groups above have even less importance, and so throughout the picture each subordinate group of objects holds its

proper place without undue emphasis, and all the parts are brought together into a unity that is harmonious.

There are a number of interesting landscapes that would be valuable to look at now. Different as they are in appearance, these paintings have several characteristics in common. Each is a sincere attempt to present a picture of nature as the artist felt it; they all show that there can be realism without imitation of nature in landscape painting. But how differently each artist has interpreted nature.

There is unusual art quality in the work of the early Flemish painter, Cornelis Massys. "The Arrival at Bethlehem" is interesting because of the manner in which the artist has interpreted the design of an imaginary landscape. Massys has created in this painting a delightful pattern so full of quaint and entertaining details that we find something new to enjoy every time we look at it. Claude Monet, the French impressionist painter of "Waterloo Bridge," on the other hand, ignored most of what he knew the landscape actually contained, and painted the scene as it appeared not only to his eyes but to his mind. The impressionists were interested in giving the effect of the luminous, vibrating colors in nature. Monet interpreted for us many beautiful atmospheric effects in nature. He was not concerned with the drawing of particular objects, but rather with the way in which their appearance was affected by his moods and by light at different times of the day and year. Monet's "Waterloo Bridge" appeals especially to those who are interested in the effects of color.

The postimpressionists, of whom Paul Cézanne is perhaps the most distinguished representative, sought to interpret the inner meaning of nature rather than its mere outward appearance. A study of Cézanne's "Mont-Sainte-Victoire" makes us conscious of an organized plan of solid forms, of beautiful expressive shapes, and of such simplicity that it seems almost as if we were looking at a powerful

symbol of a landscape. "Mont-Sainte-Victoire" grows on us, the more we see it the more we find in it to enjoy. In this picture the artist has indeed penetrated the character of nature and has been able to impart to us some of the feelings that inspired him to make the painting.

9. *Creative Painting*

Now that we have discussed the principles employed by artists in composing their pictures, in representing in them the effects of light, let us consider how a class might go about doing some landscape painting on its own. In doing this, nature should be depended on to furnish the proper mood and inspiration. Interpretation and imagination will need to be encouraged. Particular attention will be paid to light effects and to the part light and dark play in the landscape. Coloring will be individualistic rather than naturalistic, such color combinations being used as will best convey meaning. When we look upon the world as something beautiful, as it really is, we must think in terms of harmony. How hideous and how stupid life would be in a world bereft of such harmony. It is not enough for the student to search for beautiful things and combinations of them in nature, he should also seek the reasons that make them appear beautiful to him. Anyone can go to the riverside and admire the sparkle of the water, the reflections in it of trees and sky, but the art student desires to know why these things taken together produce so delightful an impression.

10. *Possible Outline of Experiences*

General Information: Nature the mother of art—Joyce Kilmer's "Trees" inspired by nature—Art is all about us—Art principles used daily in living—The importance of design—Manufacturers aiming to make the public design conscious—Understanding of

art dependent upon knowledge of design, in structure and in surface; artist interested in both.

Technical Information: Perspective: vanishing point where lines appear to come together; station point where one stands—Suggestion of outline—Third dimension has no outline—Eye follows related spots in a composition—Rhythm as related movement—Emphasis as stress—Balance as result of proper use of emphasis, balance of forces—Harmony as agreement of parts—Small amount of intense color balancing large amount of less intense color—Harmony of idea, line, mass, color.

Directed Activity: Observation of art about you—Visiting an art gallery to see how different artists paint trees and to notice texture—Study of Rembrandt's etchings—Finding several pictures of one place at different times of the day—Trying to find two flowers or leaves of exactly the same color—Seeing if advertisements are in harmony with idea put forward—Looking at the following pictures: "Courtyard of a Dutch House" by De Hoogh, "Portrait of Wertheimer" by Sargent, "The Last Supper" by Da Vinci, "Adoration of the Lamb" by Van Eyck, "Waterloo Bridge" by Monet, "Mont-Sainte-Victoire" by Cézanne.

Creative Activity: A creative landscape using design principles—A drawing employing perspective—Sketches showing texture of surfaces—Contour drawings—Various kinds of landscapes: impressionistic, symbolic, realistic, decorative, done in various mediums.

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Part II

SELF-REALIZATION

What the Study of Art Does for the Student

Chapter VI

Art and the Individual

We are all individuals. Our feelings, tastes, and aspirations are important to us. To improve our daily living, we must begin with ourselves. We shall have to improve our thinking, our desiring, and our appreciating. One of the things we must have before we can think, learn, or appreciate is, of course, a healthy body. Did it ever occur to you that there may be art in physical activities such as sports and games? Physical activities are essential to health and happiness. When subjected to control and training they rise to the plane of art. Let us think about this the next time we attend a sports event, the next time we watch a basketball or a hockey game, or even the daily exercises in the school gymnasium. A skillful athletic performance will invariably be one of the best examples of grace, balance, rhythm, form, we could hope to find.

1. *Physical Health*

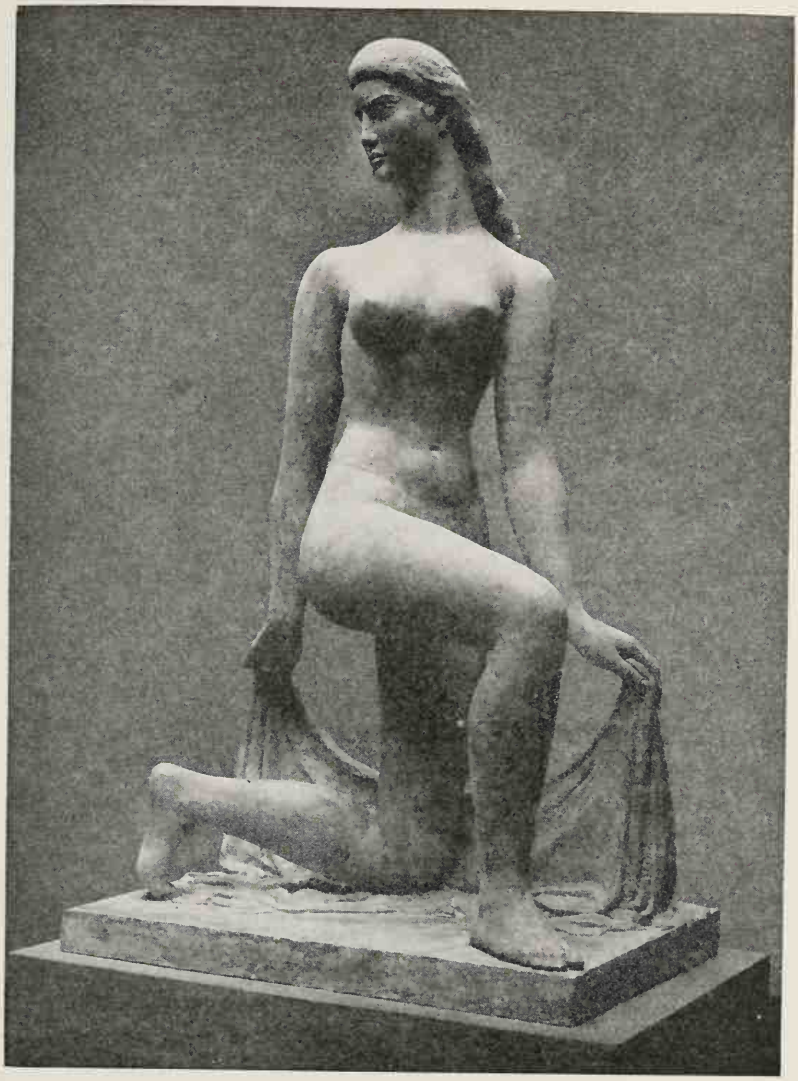
It is easier for some of us to think of art in connection with the dance than with almost any other form of body activity because the dance is more often recognized as art.

Here we find the movements of the body more subtle and refined than in most sports, for the dancer must exercise rhythm and balance continually as he proceeds. His body must be kept under perfect control from start to finish. The dance as expression in relation to art education is discussed in the paragraphs that follow. They are contributed by a high school art teacher.[1]

Art teachers, ever on the alert for new developments in the arts, must take cognizance of the fact that the dance as a medium of expression has begun to be recognized as a major art. How can the art educator relate the dance to the other fields of communication if he wishes to stress the unity of the arts? The answer depends upon the opportunities for actual participation or observation in the field of the dance as art expression. As one views the possibilities for developing appreciation in this medium in the public schools, however, one recognizes the limitations immediately. The dance as a means of expression is not included among the subjects in the curriculum of the schools. Since "the stuff of the dance," in the words of Martha Graham, is movement, it seems logical to begin to develop the first steps of appreciation of dancing in the physical education department of the schools and to correlate the subject with the others offered. This condition is difficult to attain at present, so the art teacher must attempt to integrate physical activity and art within the experience of the students.

Children, as well as most adults, are acquainted more with tap, acrobatic, and ballroom dancing than with any other types. In the art class one may start with a discussion of these branches of the dance and point out that artistry can be involved in their performance. One needs definitely to stress here, however, that in these dances little or no attempt is made to communicate an emotion or idea,

[1] Myer Site, art teacher, Southern High School, Baltimore, Md.



(Illustration is from Paul S. Wingert's "The Sculpture of William Zorach.")

In "Spirit of the Dance" William Zorach, sculptor, has chosen the right kind of material and has disposed line, mass, and color to embody most effectively the graceful rhythm and balance of the dance.

although the recreational advantages are valuable. In the words of John Martin, dance critic, "the dance is the expression by means of bodily movement arranged in significant form of concepts which transcend the individual's power to express by rational and intellectual means." This definition is difficult to explain to students who lack kinesthetic training. The art teacher, however, should call attention to the idea of significant dance form by relating dance composition or choreography to the principles of design.

Since the opportunity for actual participation in dance composition is practically impossible in the art room, the teacher should show examples of isolated movement, at least. The movements of the swimmer, the tennis player, the runner, the hurdler, workers in various occupations, the ice skater, the dancer in action, the child skipping, and the twentieth-century machine are only a few that open up a wide field of art appreciation. Many ideas of intrinsic dance merit, such as balance, precision of movement, and kinesthetic response, can be acquired through practicing the positions of dancers and other forms of movement in the art room. These poses, coupled with pantomimic ideas, can be used to stimulate an interest in drawing for expression and for work in sculpture and creative writing. Children are glad to bring to class pictures from the sports sections of newspapers and the teacher can contribute supplementary material. Photographs of dance groups, either in ballets or in the so-called "modern" system or style, can be helpful at this point. Pictures can be obtained from newspapers, from dance magazines, and from the files of the library.

Art teachers who are aware of the fact that a consciousness of the beauty of human form and movement exists in all of us should appreciate the art values inherent in physical activity. In a progressive setup, in which the dance could be related to the child's life, to the social studies, and to science, this would be comparatively simple to control.

With conditions as they are, the art teacher must fall back on the method of pointing out, through photographs, vital line movement and the principles of design as they are related to dance compositions both of individual and of group arrangements.

The ancient Greeks admired the human body nearly to the point of worship. "The Discus Thrower" by Myron, a masterpiece of sculpture, is one example of the way the Greek artists sometimes idealized the human figure. Greek children were careful of their health and did everything they knew to develop strong and beautiful bodies. Spiritual and physical values were equally esteemed by the Greeks, whose best works of sculpture are characterized by simplicity, repose, and grace. The finest examples of the representation of the human form by these people show a perfect balance between mind and body. The sculptured figures are typical or general, not individual likenesses. Although the Roman sculptor was influenced to some extent by the Greek masters, he was a realist at heart. His figures were individual likenesses rather than generalizations.

2. *Mental Health*

Rest and relaxation are sometimes just as important as activity in developing healthy bodies. Hobbies may be one means of relaxation. Nearly everyone has a hobby. Some people have them in the art field, others in music; many make collections of certain things, and some people's hobbies are in the field of sports. Some boys and girls like to spend their spare time sketching or modeling in clay or Plasticine, others like to sing or play a musical instrument, still others like to collect postage stamps, coins, or other things.

Hobbies are important in relation to mental health, for they give us an added interest, something to do or think

about other than the things we must do or think about. It has been found that to get those who are mentally ill to enter into art activities or appreciation helps them to regain their health.

What a person can do to make himself appear more interesting and attractive to others is a problem all of us face much of the time. The appearance that we make is the key to our personalities, for it may open the door to opportunities. It takes vastly more than a pretty face to make a person attractive. Many people manage to make an attractive appearance even though they do not have the face of a Myrna Loy or a Clark Gable. How to select clothing and how to wear it well and to take care of it are what matter most. Answers to the following questions should help the student to plan for and select his clothing to good advantage:

1. Is the article well designed? That is, does the garment itself look well?
2. Is it suited to my personality? (If you are an athletic type, rugged clothes would be more suited to your needs than fancy or fussy ones.)
3. Is it suited to my build? (If you are short and stocky, you would probably not want stripes or lines that run around the figure.)
4. Is it suited to my complexion? (Warm colors are generally more becoming to brunettes, cool colors to blondes.)
5. Is it suited to my budget? (No one should be extravagantly dressed.)

Being able to select clothing that will make use of the wearer's good points in relation to line, mass, and color is only part of the problem, which has also an economic side. Clothing should be comfortable and correct for the time, place, and occasion, and it should not be too expensive.

Then, too, to be correctly dressed one must conform to some extent at least to what is in fashion, what other people are wearing. Although we may not be creating art objects we must use the attributes of an artist whenever we select and combine articles of clothing. We may all be artists in the selection and care of such things.

3. *A Diorama, Art and the Individual*

If the students like to draw, model, or carve figures, they would probably enjoy making a three-dimensional model or diorama. In doing this they could draw, paint, model, and carve figures, and then dress them. A series of drawings containing figures could be planned for the background to illustrate how art affects our own living, as to physical health, mental health, and appearance. Then figures could be carved or modeled to be used in front of the series of pictures. It would help to make more real what art should do for us in our daily lives.

It is important that the class should have a clear idea and a well-thought-out plan before work is begun. Some questions such as the following should probably be solved in advance: How large will the background have to be? How large must the figures be to be in correct scale? Are we to sketch, paint, or merely to suggest the figures in the background? How can we show that art does affect us? A few preliminary sketches should help the class to develop some definite plans. Since the sketches will have to be made in two dimensions while the foreground of the diorama will be in three dimensions, the students may find that later it may be necessary to rearrange some of the things to make them appear well from all angles and in relation to the entire diorama.

In making these sketches, there are a number of things the class might like to know which would help the individuals to make better sketches. If the heads drawn are

grotesque, it may be because they have not observed people closely enough. They may begin by drawing a profile view of a head, looking at the head of a classmate who might consent to act as a model. Such questions as the following should stimulate the student to renewed effort: Could we divide the head so that the features would fall into certain equal divisions? If they do not, that is probably what makes the model look different from other people. What is the general shape of his head? Could you analyze the head you have drawn, into four equal divisions, as follows: (1) top of head to middle of forehead; (2) middle of forehead to eyebrows; (3) eyebrows to base of nose; (4) base of nose to chin?

Now, what about the whole figure? Have you seen reproductions of any of Michelangelo's drawings of the human figure? He painted and carved some of the most beautiful figures of all times. The head is frequently taken as a unit of measure. Most of his figures measured from seven to eight head-lengths tall.

When a figure is moving or in action it is, of course, more difficult to apply these rules of proportion. Then it is often wiser to try to show the motion or give the feeling of movement with as few lines as possible. In eliminating detail it is easier to show the form, grace, balance, and rhythm of movement.

"In teaching children to draw the human figure," says Virginia D. Hoskins, supervisor of art in the Baltimore public schools, "we start with one tremendous advantage. The child normally wants to draw people. The pictures that he likes best to make are those expressing his own experiences or dealing with his own interests, and these experiences and interests have himself and his friends as a subject.

"The child should have a keen interest in the particular activity that he attempts to illustrate. A boy will be most

successful at drawing football players, boxers or baseball players if he, himself, has engaged in these sports. He should know how it feels to tackle another boy in order to draw a good football player.

"Before he starts to draw, the child should analyze the position of the figure he is going to represent. How would he stand if he were engaged in that activity? Would he stand erect—lean forward—sway sideways? Would his legs be bent or stiff? Would his arms hang loose at his sides or hug his body? Would he thrust his chin forward or protect it behind a hunched up shoulder? The child who is keenly interested in the activity he is about to illustrate will be able to make this analysis. His interest will make him sensitive to the mood of the subject he is to draw and will help him express that mood with every stroke of the pencil. Only when the child is thoroughly saturated, so to speak, with feeling for his subject should he start to draw.

"His first step in drawing the figure should be to make one long sweeping line, the full height of the figure, to express the main action of the figure. This line should serve as the skeleton on which the figure will be built. It should contain as much feeling for the subject as the finished drawing will express. A point placed halfway between the two ends of this line will indicate roughly where the legs should join the body. Here again the child's knowledge of the subject will be invaluable. He knows the answer to the questions: Should the legs be bent? Should they be wide apart or close together? The same fact holds good in regard to the position of the arms and the head. The child feels the activity and can express it because it is familiar to him. The picture up to this point should be the simplest kind of sketch, mere lines being used to indicate the arms, legs and torso, and a simple oval for the head, but they will have been put together in such a way as to form a harmoni-

ous whole which expresses a definite feeling for a certain activity.

"Now the child is ready to build on this framework. At this point he can use himself or his classmates as models to get the proper swell of muscles and the relative widths and lengths of the parts of the body. He will discover by looking at another boy that the shoulders are wider than the waist—that a person turned sideways shows only one arm—that the chin is sometimes higher, sometimes lower than the shoulder.

"The child should keep in mind at all times the general attitude of the figure that he is representing. If the figure is tense and forceful, every stroke of the pencil should be made with that fact in mind. If the figure droops with weariness or dances lightly, that idea should be uppermost in the mind of the child during the whole process of drawing.

"Strictly accurate reproduction is not a primary aim in teaching children to draw the human figure. The expression of the child's own feeling for a certain activity is a much more important goal."

In carving or modeling a figure, masses are more important than lines. Certain general shapes are carved or built up. Later in the process of the work thought should be given to line, but sculpture is primarily a pleasing arrangement of masses. Generally not much attention is paid to details of representation in sculpture.

There are various kinds of sculpture. The round, or freestanding, type is visible from all sides. In the relief type, forms are attached to a solid surface or ground. Then there are the cameo, or raised-relief, type, high relief, bas-relief, and intaglio, or sunken, type, which is really not relief at all.

Health, rest, activity, and clothing have been considered. Could the class not plan to dress some figures showing the

(*Courtesy Carnegie Institution, Pittsburgh, Pa.*)

Some fine portraits may be referred to for suggestions in line, mass, and color. "Babette" by Eugene Speicher is an outstanding example.

sort of clothing certain types of people should wear, considering the following?

1. Color to harmonize with individual coloring.
2. Colors appropriate in relation to each other.
3. Good design in the material.
4. Good design in relation to figure.
5. Line becoming to the figure.
6. Accessories appropriate to the costume and to the individual wearing it.
7. Fashion and its adaptation to the individual.

Some fine portraits painted by the masters might be referred to for suggestions for color and for costume. Some examples might be: "Babette" by Eugene Speicher, "American Gothic" by Grant Wood, living American artists; "Girl at Half Open Door" by Vermeer, a Dutch master; "The Railroad" by Manet, a French painter; and "Infanta Maria Marguerita" by Velásquez, a Spanish painter.

The students will need to make their figures before they can complete plans for dressing them, just as they should sketch in the figures when drawing people before they attempt to costume them. The student may have observed young children portraying people by first drawing the head, then the feet or the hands. Sometimes young children will draw a large head, then the dress or suit, then the legs which could never hold up the body. Perhaps they draw that way because they think of only one part of the figure at a time rather than of the figure as a whole, and of the parts as they are related to each other.

Some materials will be easier to work with than others, but perhaps others will be better suited for costuming or to be used in a diorama. The possibilities of clay, Plasticine, wood, soap, plaster of Paris, paraffin, and other materials should be investigated by members of the class.

Many problems will arise as they work, but most of the problems will be solved without great difficulty. Since art skills are learned best through the doing, skill will be acquired commensurate with the requirements, as needed.

4. *The Human Figure and Art*

The work, art, play, and religion of primitive peoples are so interwoven that they can scarcely be separated. Play and art are similar creative activities. There is a great deal of freedom in both play and art, and art may be made an avocation or a profession. There is deeper appreciation of the human figure in art when the relationship between art and the human figure is thoroughly understood. We are all conscious of the beauty of the human figure; it has been a favorite subject of artists from the beginning of time. Costume has been important, too, and people have known for a long time that costume is a part of personality. The study of art should help the student to improve his personality through the improvement of his appearance.

5. *Possible Outline of Experiences*

General Information: To improve our living, a healthy body essential for learning and appreciating—An athletic performance, example of grace, balance, rhythm, form—Control in dancing, an art—"The Discus Thrower," the Greek ideal of the human figure—Rest and relaxation in developing healthy bodies—Suggestions from masters for color and costume: "American Gothic" by Grant Wood, "Girl at Half Open Door" by Vermeer, "The Railroad" by Manet, "Infanta Maria Marguerita" by Velásquez.

Technical Information: Division of the length of a head into four equal parts—Division of height of figure into eight equal parts—Rhythm as movement—Balance as equilibrium—Materials: Plasticine, wood, soap, plaster of Paris, paraffin, stone—Standards for selecting clothing: is it well designed, is it suited to my personality, is it suited to my build, is it suited to my com-

plexion, is it suited to my budget?—Forms of sculpture: high relief, bas-relief, cameo, intaglio.

Directed Activity: Development of a hobby—Visiting museum to see portraits for color and costume—Sketching from the human figure, for proportion and action.

Creative Activity: Building a diorama—Water-color painting of an important school athletic event—A mural (using figures) to integrate school experiences in history, geography, art.

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Chapter VII

Art and the Idea

Art is the free and adequate embodiment of an idea, in a form peculiarly appropriate to the idea itself.

—Hegel.

The purpose of the preceding chapter was to point out some of the important relationships existing between art and the individual and to indicate ways in which these relationships might be stressed in the teaching of art. The present chapter will aim to discuss the relationship between art and the idea which may or may not grow into a worthwhile product, depending on the significance and quality of the idea itself and on the potential force that it possesses for motivating expression on the part of the artist. If art expression as the result of ideas is to be encouraged in the schools, the teacher should do all that is humanly possible to encourage the formation and growth of motivating ideas on the part of boys and girls.

The American public has witnessed in recent years a skillful use of ideas, especially by minority groups desirous of forming public opinion favorable to their own ends. Many ideas expressed in art form in recent years have thus

been gained by artists either directly or indirectly from those interested in social changes and in the improvement of living conditions in our country. By means of this art expression we, too, have acquired a better understanding of social needs and incidentally perhaps a taste for beautiful things and a realization that they are essential to the happiness and well-being of everybody.

1. *An Idea Necessary to Art*

The works of artists throughout time can be used to gain understanding and appreciation of social problems; they have long been recognized as a means of gaining clear ideas of the thoughts and activities of a people. Thus it is that the living social problems and conditions of any historical period may be said to be reflected in its art. An idea is, therefore, necessary to art whether the purpose be to convey meanings, to organize thoughts, to increase efficiency, to create beauty, or to provide buildings, utensils, paintings, or sculptures.

Stephenson and the locomotive, Whitney and the cotton gin, the Wright brothers and the airplane—these are examples of the way in which art may have as its purpose increased efficiency in living. Cellini and his "Perseus" and Michelangelo and his wall decorations for the Sistine Chapel illustrate again how art expression may be used to provide lasting beauty not so directly associated in our minds with utilitarian purposes. The artist who gives us things that are useful primarily and the one who provides us with things that are beautiful primarily are both our benefactors, for each has worked an idea over into appropriate art form.

2. *Understanding of Art*

In meeting the needs of man, art has a twofold purpose: first, it meets the need for emotional release and creative

expression or performance; second, it meets the need for appreciation, evaluation, and enjoyment. Art is sometimes used to express strong emotions such as joy, fear, sorrow, love, and hate. Sometimes it is used to express feelings of less intensity. Some people enjoy the technique of art in the same way they enjoy the skill exercised in a football game. Others experience great delight in design, still others enjoy the mood aroused by a work of art, but most people will doubtless have to admit that they would probably not be much interested in a work of art were it not for the ideas conveyed by it. Pictures, statues, buildings, useful objects, advertisements, all convey ideas to him who can interpret them for himself. It is, therefore, imperative that the art teacher should help the child to grow in his ability to understand and interpret art products.

3. *The Idea and Design*

Chapter I reminded us that all the things about us are divided into two main classes in so far as their origin is concerned: natural and artificial. Snowflakes owe their beautiful shapes to the workings of nature's forces. Art forms owe their existence to the imagination of man's mind and to the skill of his hands.

In beginning the study of the idea in design, it should be pointed out that lines may be classified in a number of ways —straight and curved. A straight hard line cannot be considered beautiful in itself because of its uniformity throughout. Nor can a crooked line be considered beautiful in itself because it is ever changing in a disorganized way; it has no unity. A curved line possesses degrees of beauty which depend on rhythm, variety, and the harmony of its parts. The arc of a circle is probably the least beautiful of all curved lines because it lacks variety; its change of direction is ever the same. An ellipse is more interesting than a circle because it has more variety of parts. Parab-

olas, hyperbolas, and other compound curves often attain a high degree of beauty because of the varied rhythm they possess. Such curves are often used to good advantage in design.

Vertical lines are often used in art to express aspiration; horizontal lines, to express solemnity and repose; diagonal lines to express unrest and impatience. Curved lines are sometimes used to express tranquility and even love.

Thus far our discussion has dealt with straight and curved lines as such. A skyrocket sweeping through the sky defines a beautiful rhythmic curve which may even inspire an artist to paint a picture as it did Whistler, or to design something just as beautiful and possibly even more useful. Let us consider the beauty of such lines in connection with some use or purpose which they have to perform. Curved lines may be found in many useful things. A vase, a piece of furniture, or an automobile depends largely upon the quality of its curved lines for interest and beauty.

4. *Aesthetic Ideas*

According to the dictionary, "aesthetic" as an adjective means "of or relating to beauty or what is beautiful." Aesthetics, therefore, deals with appreciating that which is beautiful in art or in nature. Aesthetic ideas can apply to the making of any object or to such ordinary activities as the rearranging of furniture, selecting a tie and socks to harmonize with a suit, or visualizing the planting of evergreens around a house; in fact, to any object that in its design, its making, or its appearance with reference to other objects may involve what is generally referred to as "taste."

Ways in which aesthetics has played a significant part in improved automobile design or in effective advertising, how it has influenced public opinion through caricature, what it is now doing to make motion pictures more significant, all this would serve to emphasize the importance of the aes-

(From the Newspaper National Snapshot Awards.)

The more deeply one experiences an idea the greater will be the possibility that he may express it artistically in art form.

thetic ideas in art. Even postermaking offers extensive opportunities for the creative expression of ideas strongly felt, but the idea of beauty must likewise be kept uppermost in mind if the message is to be effective and lasting.

It should be apparent that the more we play with a definite art idea the greater will be our understanding of its aesthetic value. The student should be encouraged to think about what he would like to do in connection with his study of the idea in art. Then he should be allowed to decide on some one definite idea which he would like to work with, using materials. It can be anything he chooses, an idea from the social studies, from physical education, from science, from music, or from any other school subject or extracurricular area. It might even be suggested by his experiences outside school, at home, at the movies, or at the ball game, anything. He may want to draw or paint, or model in clay or Plasticine, or he may prefer to build or make something that he can use, to make a poster to advertise a school function or popularize an organization. When he has hit on the idea he may be asked to write it down so that it cannot escape. Materials should be at hand for everybody to work with. When everybody in the class has captured an idea, all the ideas may be read and discussed in class. Then the work of embodying them in materials, in art form, is begun.

5. *Growth of Artistic Taste*

Taste is possible only because people disagree as to what is fitting and beautiful. If by good taste is meant the power of discerning and appreciating that which is fitting, beautiful, or excellent, then good taste is something that must to a large extent be acquired by all. Many articles common in our homes, even the playthings used by children, may show remarkably good taste or remarkably bad taste in their design. It is not always necessary that articles be costly

to be in good taste or good in design. On the contrary, many beautiful design ideas are to be found embodied in simple inexpensive store articles that all can afford to buy.

In the brief span of 20 or 25 years we have seen building, which a few years ago scarcely deserved the name "architecture," rise out of its ugliness, throw off meaningless decoration, and become what the best of it is today, a genuine expression of the spirit of modern times. This change has gradually come over the designing and constructing of all kinds of buildings, domestic, religious, educational, and recreational as well as commercial, industrial, and civic.

Perhaps its most thorough embodiment is in the commercial field, typified so appropriately by the American skyscraper. These evidences of improved taste are to be seen in the interiors and furnishings of homes, schools, office buildings, banks, and other edifices no less than in their exteriors and surroundings. Indeed, neighborhoods and even whole communities have been harmoniously conceived and actually created.

During the same period there has been a corresponding improvement in the general demand for manufactured articles of ever-increasing appropriateness and beauty: better textiles, costumes, millinery; better jewelry, silverware; better lighting fixtures and hardware; better glass and pottery; and better furniture, wallpaper, and hangings. This improvement is noticeable not only in the offerings of the exclusive shop but even in those of the 5-and-10-cent store.

Art quality in advertising also has improved greatly during the period. Posters are seldom so offensive to persons of taste as they once were: some of them may be considered actual works of art; newspaper and magazine advertising has likewise been affected for the better, as have commercial circulars, pamphlets, and catalogues. There has been a

corresponding change in the appearance of most containers of goods, in their labels, and even in cartons and their outer wrappings. Improvement in the arrangement of display windows, showcases, counters, and shelves has kept pace with the aesthetic development of other forms of advertising, until today the windows and salesrooms of some of our great department stores have come to be regarded by some as veritable "art museums of the people."

Are people no longer interested in paintings and sculpture as manifestations of art, do you ask? Witness the number of art museums that are being erected throughout the country. Witness also the ever-mounting number of students attending art schools, or pursuing art courses in our colleges and universities, or traveling for the purpose of studying art. Witness the increasing availability of works of painting and, to a lesser degree, of sculpture, in the form of reproductions that satisfy, in some measure at least, the human popular craving for works of purely individual expression.

It has been said that art education is for the development of taste. That is an important objective. Already the influence of art training in our schools is noticeable in the improved taste that is in evidence all about us. The time has now arrived when merchandise may be accepted or rejected almost solely on aesthetic grounds, regardless of intrinsic or other worth. People are expressing themselves creatively through their intelligent choices in purchasing things. Further, they are getting more enjoyment than formerly from caring for the things, keeping them "good looking," which in itself is an indication of taste.

This condition has doubtless been brought about by a number of forces, including the elementary and secondary schools and the educational work of the art museums; by the stores; by periodicals, especially those devoted to home interests. But perhaps the greatest influence has

been that exerted by teachers in our schools. They are demonstrating above most others that art education is for the development of taste. Is public taste improving? At any rate, most people are exercising critical aesthetic judgment and discrimination in the selection, arrangement, and care of things generally, even if they might resent being called "artistic" and would scarcely admit this statement to be true.

6. *Ideas and Art in Modeling*

It might be appropriate at this stage for the class to plan some modeling in clay or Plasticine, using an animal form as the object to be modeled. In studying animals, we shall doubtless find that some of them are capable of showing their feelings not only in their actions but even in the attitudes they assume. Among dogs we may find that the Airedale is often and perhaps typically disconsolate and even dignified; the bulldog, sluggish and pugnacious; the police dog, treacherous and vicious; the collie, affectionate and alert; the spaniel, pensive and faithful; the greyhound, confident and impatient; the terrier, playful, solicitous of attention, and hilariously friendly.

The boy or girl can readily imagine the solitary figure of an Airedale stretched out on the ground with a ball between his teeth; a bulldog standing guard over a child's toy; a police dog gnawing at a bone; a collie welcoming the return of his master; a spaniel "speaking" for a morsel of food; a greyhound surveying a fence preparatory to a leap; a terrier barking to get attention. Such themes as these are suggestive of the possibilities afforded for appropriate activities.

7. *Interpreting Art to Others*

Doubtless we are all born with the desire to create, but not all of us are given sufficient opportunity to exercise that urge. If we make the best of this opportunity and attempt

to put our ideas into art form through doing things with materials, we shall find that it will lead ultimately to many happy experiences, whether we intend later to follow art as a means of making a living or just as a means of making living more worth while.

Summarizing, we have seen the way in which ideas have been used to stimulate creative work in art, we have learned about the value of an idea in art expression, how the idea, if we can discover it, will help us to appreciate art, what the value of an idea is in design, and how by using ideas we may finally both interpret and produce works of art. We shall also be able to help others to see in art what otherwise might never have been visible to them.

The use of drawing, modeling, and building as a means of expressing ideas arising in the various studies pursued in school or in life outside school should make work in art more valuable to the students whose minds crave ideas and look for them in all things interesting and stimulating. It is for the teacher so to set the stage for art activities that creative work will of necessity be forthcoming, as emotional release, expression in concrete form.

8. *Possible Outline of Experiences*

General Information: Understanding of art—Need for expression: joy, sorrow, fear, hate—Sources of ideas: history, science, nature, music, discoveries, experiences—Ideas necessary to art: living conditions, social problems, works of artists—Needs for art in buildings and transportation—Growth of artistic taste.

Technical Information: Idea and design: natural forms, artificial forms, correct lines, good color, spacing in nature, art—Aesthetic ideas—Learning to develop an appreciation of the fitting and the beautiful—Ideas and art in modeling—Creation from actual experience—Interpreting art to others—Embodiment of ideas in designs—Selection of clothes and furniture—What to look for on observation tours—Skyscrapers: economy, light, health.

Directed Activity: Study of living conditions: observation tours —Folders to hold drawings and idea material—Collection of pictures of various types of work done with clay, wood, leather, metal; with different lines and designs—Museum visit to exercise artistic taste—Selection of clothes and furniture—Exhibits of students' work—Notebook of information, from instructor, or outside helpful information—Sharing knowledge with others.

Creative Activity: Original drawings of historical events, discoveries—Sketches on observation tours, beauty—Own creative work—Charts of various types of work done with various mediums—Collection of several artists' works, individual types of work.

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Chapter VIII

Creative Expression

Many people still look upon the artist with somewhat the same admiration and expectancy with which they watch a magician pull rabbits out of a hat. This feeling toward the artist is false. As pointed out in the preceding chapter, every great project, whether a conquest of nature or a conquest of art, is begun with an idea. Every exploration of unknown territory, every bridge that spans a river, had its beginning in an idea. The clothes we wear and the tools we use had their beginning in an idea. Whenever an idea appears in a person's mind it becomes the center of his attention and demands that something be done about it. Action always follows an idea, which is the trigger that starts the gun. Thus art expression may be thought of as emotional release through art. In works of art, feelings and thoughts are made manifest. Creative activity is self-expression resulting in art form. Such expression must be both spontaneous and free.

When early man experienced rain, the idea came to him to provide a shelter. Religious experience gave him the idea to build a temple. Temples later became churches.

The ability to meet human needs through art we call "creative power." Such power is not considered the possession of the artist only, it is a part of every one of us. There is great satisfaction in making something that we ourselves have thought through, something for which we alone are responsible and which we are able to carry to completion.

Creative expression in art is dependent on two factors. The first is man; the second is his environment. Man must have an idea if he is to produce art, but he must also have the materials to set forth this idea. If man has no idea, he can produce no art. Neither can he produce art if he has no materials. Man's interaction with his environment makes art possible. Art mediums constitute the link between man and art, they are the material means to creative expression. Man must express himself creatively "to satisfy his soul." He must be "inspired" to create.

Work thou for pleasure,
Paint or sing or carve
The thing thou lovest,
Though the body starve.
Who works for glory
Misses oft the goal.
Who works for money
Coins his very soul.
Work for the work's sake
Then, and it might be,
That these things shall
Be added unto thee.[1]

Inspiration is a valuable possession of the artist, and of everyone. Everyone has the same freedom to inspiration and expression. He who has the best ideas and expresses them the most beautifully and adequately is the greatest

[1] Author unknown.

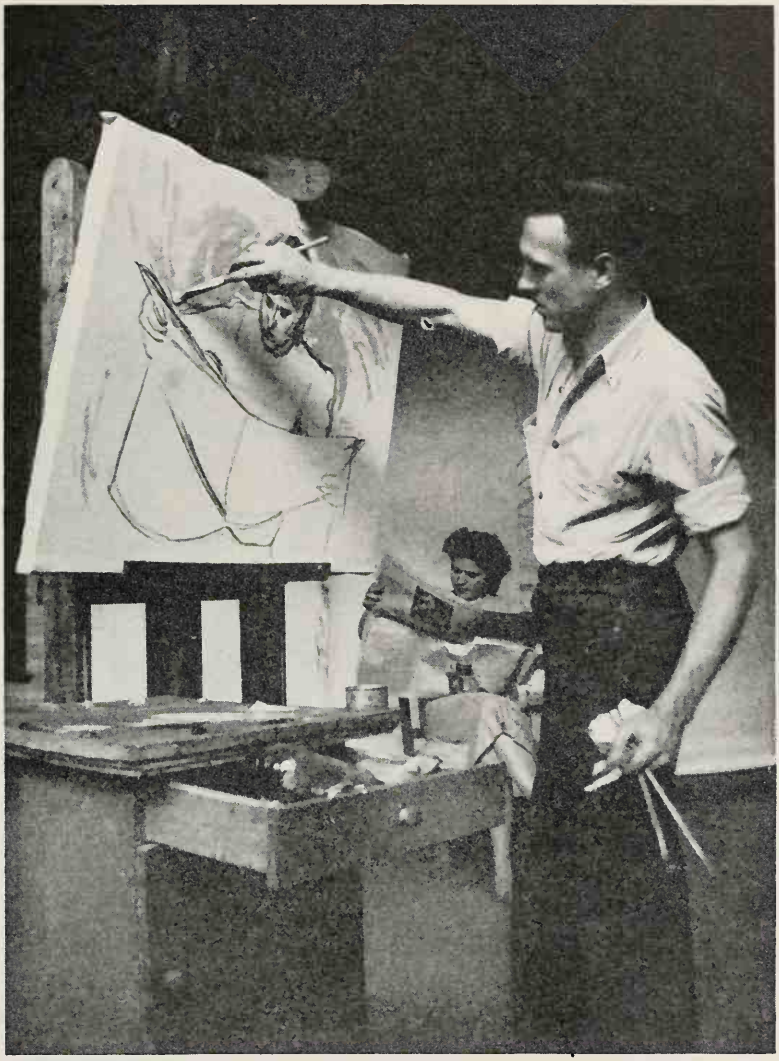
artist; his work is, indeed, entitled to be called "fine art."

1. *Work of the Artist*

The artist must rely on his emotions and his feelings as well as on his materials. Therefore, a work of art is a distinctly individual thing. Just how or by what means the artist expresses himself is not always important. It is the feeling that results when we look at his work that gives it an important place in the world of art. Nevertheless, art may be regarded as the result of ability evinced by a high degree of skill. It takes expression plus skill to make art.

A dozen doorknobs placed side by side may form a striking pattern when they are photographed. An arrangement can be made with blocks of wood or pieces of machinery or almost anything else to form an interesting and beautiful pattern. The organization of such things to produce a desired pattern can be thought of as design, for design always has thoughtful organization and careful arrangement back of it. In a broader sense, design is thinking and planning with a purpose. The thing that controls that which is pleasing to the eye is design; it results from the harmonious adjustment of lines, shapes, and colors. Our designs for things must change with the character and the quality of the idea back of them.

When the first "horseless carriage" appeared on the roads, the inventor was so concerned with the idea of what would make it go that he gave little thought to the outside appearance of the new automobile. Now that appearance has been considered, designers of automobiles are paying more and more attention to the comfort and looks. Have you not felt beauty when you looked at a sea gull, a greyhound, or a horse? An airplane can follow these same sleek lines of perfection in its design. The designer must return



Since an artist must rely on his feelings as well as skill in the manipulation of materials the resulting work of art is individual. Julien Binford, painter, begins a portrait in his studio.

continually to the conditions imposed by the problem itself. Originality, as well as inspiration, is generally necessary in design.

Art is the flowering of an idea. The satisfactory changing of an emotion into art form depends upon design. A line placed on a piece of paper can fail to express anything. With a few simple twists of the pencil, however, a line can be made expressive. Its expressiveness depends on who happens to be the wielder of the pencil. Can you draw a line that expresses joy, sorrow, hate, anger, futility, or love? Try it and see. Creative art comes from experience; it is something which nature, unassisted by man, is powerless to provide. Art is experience, as Dewey has so ably pointed out.[1]

2. *Dreams and Art*

Of the many things we want we actually get but few, but in our dreams we have all that our heart's desire. Art and dreams are alike in that they both show us a world nearer to our heart's desire than is the world in which we live. To the eye of others our circumstances may seem shabby, our abilities commonplace, and our persons unlovely; to our own eyes they may appear somewhat the same though probably less so. At the first opportunity we look away from things in their ordinary form and seek and find better things in our imagination. Then it is that beggars ride on beautiful horses. Sometimes art works seem to have no purpose other than to fulfill our dreams. Art should not be used, however, as an escape from reality; rather, it should be employed as a means to better living in which our dreams may be realized through employing design in most situations.

3. *Symbolism*

A question continually raised in connection with the study of art is: Shall art represent or shall it express?

[1] Dewey, John, *Art as Experience*, G. P. Putnam's Sons, New York, 1934.

Painting as a purely representative art is exemplified by the well-known fish pictures that are still to be seen hanging in some dining rooms, yards of roses, enlarged portraits of mustached relatives, and ordinary illustrations. The student's aim should be to free works of art from the purely literary or storytelling element. He should no longer be satisfied to paint merely things and incidents. We do not expect musicians to imitate in their compositions dogs barking, chickens cackling, or cows mooing. Simply because these sounds exist in nature, we do not insist that they be reproduced in music. But many people still expect this very thing of the painter. We must do all that we can to overcome this error. If people cannot grasp the meaning of music, they confess they do not understand it. If they fail to understand a painting, however, they are inclined to label it trash and let it go at that.

The scientist is allowed to experiment in strange and unknown fields. If we fail to understand him, we at least give him the consideration of sincerity and consider him a useful man. The artist is not generally so fortunate. If his work is new and unknown, it is still likely to be labeled "vulgar, destructive, and insane." Yet throughout history nearly every great work of art was created not in conformity with but against the prevailing popular taste. Why should artists care to do things that make them so unpopular when following old paths would be much simpler and easier? The answer could perhaps be given by artists like Rodin and Cézanne and Ryder. Art comes from the people, but great artists are high above the rest. Great art has always been and will doubtless continue to be genuine creative expression, the outgrowth of ideas and feelings.

Nearly everyone places an illustrative value on a picture, neither knowing nor caring that the illustrative value is merely incidental to art. Many people are content to ask

such questions: "What story does this piece of work tell? . . . Is it historically correct?" The true artist might retort, "Why drag in literature, history, or sentimentality when dealing with works of art? Certainly there is something that lies deeper than that." The great masters have always worked to attain good art form in expressing their ideas. The use of subject matter and of technique, however, was to them merely a means to an end. So should it be to the student of art.

Our artists of today, or many of them, have shifted the emphasis away from the representative toward a purer art form. Modern art is concerned with what is happening here and now. A seemingly disordered modern composition may sometimes bring a desired frame of mind to the spectator even though representation is feeble. It is suggested that the advantages and disadvantages of abstract art be investigated by students in order that their art expression be new, vigorous, and powerful. Let the student ask himself, "What are the enduring qualities of beauty?" The design elements that the Greeks prized most were balance, symmetry, unity, and harmony. Let us prize these elements too but let us not forget to approach art as something vital to our lives here and now.

4. *Design Principles*

Good taste in art involves the application of design principles to the problems in life where appearance as well as utility is important. This includes the selection and arrangement of all our material belongings, and when beauty is present in our surroundings it becomes a part of our life and of our personality. Art is not a thing to be set aside, but its attainment should be sought in everything we do.

The idea is all too prevalent that art is decoration and that an object must be "ornamented" if it is to have art

quality. Anyone possessing appreciation should get perfect satisfaction from an undecorated object if it is adequate to its purpose and is beautiful in shape and color.

Design has to do with the selection, arrangement, and use of materials with three considerations in mind—use, order, beauty. One artist uses an ordinary piece of paper and a pencil, and people rave about his work; another uses the same materials, and the result is thought to be less worthy. Wherein lies the difference? We may say that we are not much concerned with art as it is employed in the painting of a picture. Sometime we may have to select pictures and to harmonize them with other things.

Selecting articles and arranging them probably requires the same knowledge of design as does the creation of objects themselves. Many problems met daily call for good taste, and most of these problems can be solved by the use of design principles which may be employed as a kind of yardstick to measure the worth of works of art and their arrangement. Harmony, the fundamental aim of all design, results from the successful application of the principles: proportion, balance, rhythm, and emphasis. Harmony implies unity through the selection and arrangement of parts. When the objects in a group or the parts in a design seem to have a strong "family resemblance," the composition may be said to be harmonious.

Good proportion is achieved by obtaining beautiful spaces and by the proper use of size, or scale. The success of every design depends also on satisfactory balance. The restful effect called "balance" is obtained by grouping shapes and colors in such a way that they will keep their proper places in a composition. Rhythm may be regarded as movement that is organized and easy. It is sometimes achieved by the repetition of shapes, by progression of sizes, and by arrangements that produce continuous eye movement. Emphasis is the design principle by which the

eye is carried first to the most important thing in any arrangement, and from that point to every other detail in the order of its importance.

In any arrangement, when a number of shapes are used, there should always be an effect of organization or order. If a sense of order is to result, shape harmony must be present. Sometimes it is desirable that the large objects or masses should follow in a general way the boundary line of the enclosing shape and that only the small objects or masses should vary from the general enclosing shape. To give variety, some of the small objects in a composition may be placed at slightly varied angles. Too many angles which sharply contradict the leading lines of the composition may, however, result in confusion instead of in interesting variety.

5. *A Project in Nonobjective Art*

The design principles above discussed are found to be present in all works of art. When working on any creative problem, these principles should be considered collectively rather than individually. Indeed, it may be best not to consider them at all in advance of the process of creating. It is suggested that the boys and girls consider working up a project in nonobjective art, to be followed by an exhibit of products. The problem of preparing for the nonobjective art exhibit should stimulate an interest in all the more important design principles. The mediums used might include such things as blocks, balls, string, tacks, paper clips, and wood. From these materials students should be able to create three-dimensional compositions which will fill a given space of, say, approximately 6 by 8 by 12 inches. The compositions should, of course, be pleasing in appearance and should possess all the qualities of a good design.

When the compositions have been completed, the students should get them ready for exhibition, deciding such

important matters as method of showing, lighting, arrangement, labeling, and advertising. Labels might be made about 3 inches long and 2 inches wide. On them should be lettered a short description of the work in clear, large letters. Much care should be exercised in arranging the exhibit so as to show things to the best possible advantage.

All art has its beginning in an idea, and so will the compositions and the exhibit. Whether one attempts to construct a mousetrap or to build a skyscraper, one must begin with an idea and carry it through.

> Perfection thus emerges from the sod:
> This stately tree, which shelters us today
> Came from how small a seed; this lovely rose
> Was once a tight closed bud. So each thing grows
> By gradual steps to loveliness. That way
> The soul has come on its long search for God.[1]

Inspiration is a valuable possession not only of the artist but of everyone, and we may all be artists to some extent, at least, in the kind of activities we choose to undertake and in the way we carry them to completion. That is what creative expression in art should mean for all boys and girls.

6. *Possible Outline of Experiences*

General Information: Creative art: every great project began with idea—Action to follow idea—Art dependent on two factors, man and environment—Work of artist: individual, expresses emotion—Art and dreams: both showing world nearer our heart's desire—Symbolism: shifting emphasis from representative to purer form; seemingly disordered composition bringing desired frame of mind to spectator—Art principles: application to problems of life—Selection and arrangement of belongings—Good taste—Inspiration: valuable for everyone—All are artists—Need often behind idea in art.

[1] Raplee, Elizabeth V., *Good Housekeeping Magazine*, August, 1939.

Technical Information: Design: careful organization and arrangement—Thinking and planning for a purpose—Originality and inspiration—Selection and arrangement with two considerations, order and beauty—Knowledge or principles of design in creation of objects—Elements prized by Greeks: balance, symmetry, unity, harmony—Art principles: proportion, balance, rhythm, emphasis—Harmony: fundamental aim of all design; implying unity through selection of all parts—Mediums in nonobjective art exhibit: blocks, balls, string, tacks, wood.

Directed Activity: Immediate goal: abstract, to aim for new, vigorous, powerful expression—Art principles: to be used as yardstick for measuring worth of works of art and arrangements—Nonobjective exhibit: space to be filled, 6 by 8 by 12 inches—Composition: pleasing and possessing qualities of good design. Labels: 3 by 2 inches, placed; art principles to be used—Visit to museum, noticing difference between representative and symbolic art.

Creative Activity: Lines expressing: joy, sorrow, hate, anger, futility, love—Arrangements with blocks of wood to form interesting and beautiful pattern—Nonobjective art exhibit—Posters advertising exhibit—Clay modeling: vase or bowl, beautiful design, no decoration.

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Chapter IX

The How and Why of Design

As pointed out in a previous chapter, art is more than expression. The expression has to be controlled. The controlling factor is design. It is important that an adequate concept of design be acquired by high school pupils in order that the worlds of nature and of art shall mean more in their lives. Design is, of course, vastly more than exercise; it is, indeed, fundamental to art appreciation and to artistic expression as well. Reduced to its simplest terms, design is synonymous with plan. It has to do with the arrangement of parts, with pattern.

1. *Nature Works in Patterns*

Have you ever examined a snowflake under a magnifying glass? If not, try it. You will be amazed at the myriad tiny lines radiating from the center and branching out and out until they form an intricate pattern like some beautiful lace medallion spun by fairy hands, so delicate that it is gone in a minute. Or examine a frosted windowpane. Trace the delicate lines. You will find beautiful castles

and trees, ferns, figures and faces of persons, all woven together into a fantastic picture. Anything could happen there. It is another of nature's miracles.

Sometimes we marvel at the regularity of nature's patterns, as in the snowflakes referred to or in a flower formation. The daisy, for instance, has its petals uniformly arranged, spokelike around a central hub, each petal in turn containing fine lines running lengthwise and the center being composed of seemingly tiny dots arranged in ever-larger rings around the minute central dot like the circles formed on the surface of a pond when a pebble is thrown in. Another arrangement is that of the violet, in which the petals are not all the same size and shape. Yet the flower is symmetrical, the two sides being alike though reversed. One can divide the violet in half vertically and each side will be found to be the duplicate of the other. The same arrangement is found in the insect world. Insects are generally of the violet type in construction—one side being exactly like the other. Consider the beetle, the butterfly, the mosquito. Yet all things are not balanced so exactly by nature. Look at the stem of a plant. It is not perfectly erect nor are the leaves growing on it always directly opposite each other.

2. *Color and Nature*

Another of nature's design wonders is the rainbow. Just what is a rainbow? Where do the colors come from? Have you ever held a prism (a three-sided piece of clear glass) in the sunlight and watched the flash of colors that it makes on the wall? Nature has her own prisms—millions of tiny globules of moisture high in the air which separate the light of the sun into seven parts, each a distinct color—red, orange, yellow, green, blue, indigo, and violet. Perhaps Nature is but giving us a glimpse of her store of working materials, materials used to enhance her flower

(From the Newspaper National Snapshot Awards.)

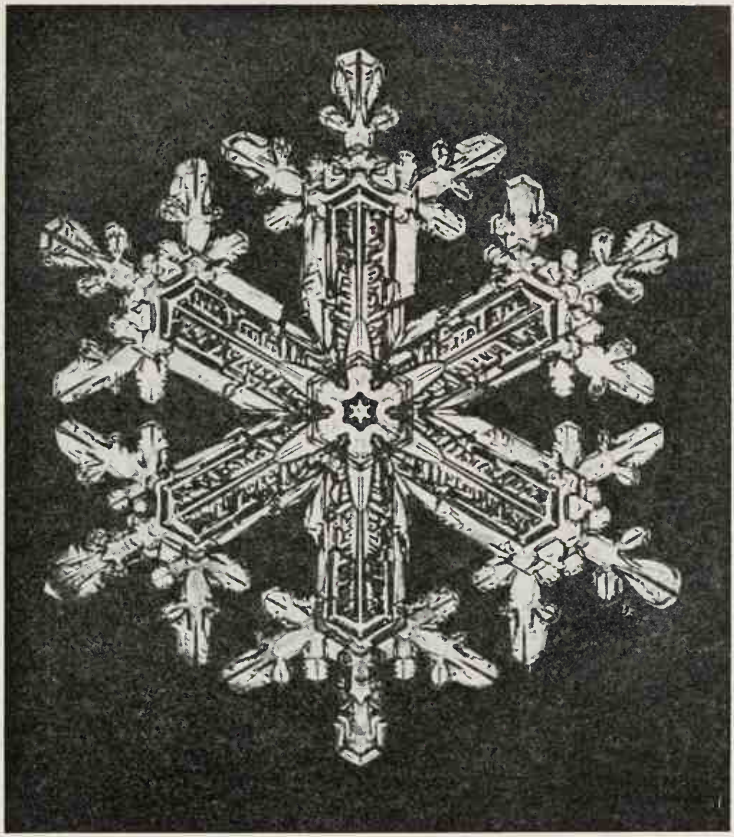
We marvel at nature's patterns as in the ever-increasing rhythmic rings impelled around a point on the surface of water when an object thrust in disturbs its tranquility.

petals, her butterfly wings, even her crawling caterpillars. Have you ever examined a fat green caterpillar and seen the tufts of vivid colors placed at regular intervals along its body? And have you ever seen a luna moth just poised for flight? You should.

Again, Nature uses her colors to portray the seasons: pinks, yellow-greens, subdued reds for spring; rich greens for summer; yellows, reds, and bronze for autumn; blues, violets, and white for winter. An interesting five-color circle has been devised combining the months of the year with the various colors according to the changing seasons. The comparison of each month with a color depends upon the amount and the quality of light in each. Thus June, the lightest month, is represented by white and December, the darkest month, by black. There is a gradual decrease in light from June to December, July being represented in the color circuit by green-yellow, August by green, September by blue-green, October by blue, November by purple-blue, and December by black. There is an increase in light from December to June, January being represented by purple, February by red-purple, March by red, April by yellow-red, May by yellow, and June by white. Which month of the year, or which season, do you consider the most beautiful? As an artist, which would you prefer to paint?

3. *A Purpose in Works of Nature*

Nature is farseeing. We may wonder why one flower is tall and vivid in color, another retiring and subdued in color; why one seed is shaped differently than another. The tall, vivid flowers attract insects which act as pollen bearers, carrying pollen from one flower to another, thus aiding the seed formation necessary for that particular kind of flower. The seed pods are interesting too. Some, like the witch hazel, burst suddenly when touched as though



(Photograph by W. A. Bentley, courtesy of U. S. Weather Bureau, Washington, D. C.)

In Nature's snow crystals myriads of lines sometimes radiate from the center to form a lace-like pattern of exquisite beauty. Natural laws known as the principles of design enter into every man-made plan, whether it be for a painting, a sculpture, a craft product or a commercial advertisement; derived from nature they govern the disposition of structural elements in all works of art.

a hidden spring were released, scattering tiny seeds around. Others, like the milkweed, open slowly, releasing seeds which have feathery parachutes for traveling on the wind.

The purposes back of works of nature apply also to animal forms. Why is the giraffe's neck so long? Why do hummingbirds have long bills? Why are female birds subdued in coloring? Are you familiar with the chameleon, the small lizard that can change its color to match more or less successfully the object it is on? The reason is obvious, it is self-protection, self-preservation.

4. *Purpose and Pattern in Works of Man*

The same reason applies to things made by man. He, too, seeks comfort, self-protection, and self-preservation. He, too, adapts himself to his surroundings, but he is capable also of bending his surroundings to his will and thus of providing for himself increasing comfort and happiness. The Eskimo builds igloos of snow blocks; the African builds huts of thatch and raises them on stilts to protect himself from wild animals. In rural New England the houses, barns, woodsheds, and other farm buildings are often joined together in a single group so that the inhabitants can go from one to the other without being inconvenienced by the severe winter snowstorms. Most of the New England homes are "frame," built of wood, a natural product of the environment. In other parts of the country we find houses of brick, stone, or of blocks made of concrete, depending upon weather conditions and local resources. Compare a modern house with a home of one of the earliest settlers of the vicinity where you live and you may discover that there is scarcely any similarity at all.

The same is true of vehicles and locomotives. The word "streamlining" immediately comes to our minds. Man's demand for increased comfort, utility, and efficiency has resulted in smooth lines, simplicity, and speed. The

railway locomotive gradually lost most of its projecting parts as the size of the boiler increased, the width or space between the tracks, and the height or distance from the tracks to the standard-height bridge remaining the same. Thus, streamlining in the case of the railway locomotive was "by evolution" just as we find it in nature in such forms as fishes and birds. Streamlining in airplanes has undergone a similar development. Even in common utensils of everyday use and in sculpture and painting, we find the same simplicity and smoothness of line—the result of man's attempt to express himself concisely and surely in meeting more and more effectively the problems of living.

5. *Design, the Working Plan*

All things made are works of art, whether they be pictures or objects, statues or buildings, dams or bridges. Whatever the purpose, a definite, well-thought-out working plan is needed in order to get a satisfactory result. This plan is called a "design." A design may be simple or it may be quite complicated; it may be but a flash of inspiration or it may be a carefully worked-out plan which is revised many times before it is finally perfected. The finished plan or design is a thought or idea; it will finally take on art form, in line or mass or color, or in all three. Design is not to be separated from a thing designed; it is inherent in the thing itself. Though we do not generally think in terms of line, mass, and color in either looking at or planning a piece of art work, yet unconsciously they may exert a tremendous influence upon us as we work. Line lends character to a work of art; it gives feelings of strength, grace, force, or movement, and action. Mass lends solidity to the work; it is in general the bulk of the work itself, regardless of materials or color. Some work needs solidity, even massiveness, and not only of appearance, like the piers

of a bridge. Color adds life to a work of art, just as at dawn the whole world wakes to beauty because of it.

6. *Color in Design*

What colors do we combine to form a pleasing composition? Imagine a dress with bright green, red, and yellow figures in it! The mere thought of such a costume makes one shudder. Yet green, red, and yellow can be used together, and the result may be extremely pleasing. For instance, a dark rust, a green-yellow, and an amber are beautiful used together. What have we done with the colors to secure this result? Let us now consider the properties of color: hue, value, and chroma.

By hue we mean the color itself—red, yellow, green, blue, purple, yellow-red, green-yellow, blue-green, purple-blue, red-purple. By chroma we mean the strength or vividness of a color. Savages are given to using the hues in all their intensities, or chromas, just as a young child sometimes wants everything vivid in color. As we grow older we become dissatisfied with crude colors. We come to prefer the subtle tones.

By value we mean the lightness or darkness of a color. In water colors, for instance, we obtain the various tints of a hue by adding water. The more water we add the lighter the color becomes, until we obtain a beautiful tint called "pink" and eventually almost the complete absence of hue, or white. On the other hand, if we want to darken the color, we add black, and the more black we add the darker becomes the shade of it, until the color approximates black, or absence of hue.

Interesting tones of color are secured by using various degrees of strength, or chroma. For instance, there are other reds besides the tints and shades that we have discussed. Take a small amount of pure red show-card color and add a drop of pure blue-green. Mix well and note the

change in chroma, another red. If you keep on adding blue-green until you have equal parts of red and blue-green, the color will become neutral, that is, it will be neither red nor blue-green, but gray. Keep on adding green drop by drop, mixing well each time. What color have you now? Yes, a blue-green, but not a vivid or strong color. However, the more blue-green you add the more intense will be the color you get. This process of graying colors can be tried with any of the contrasting hues and many beautiful tones can be found.

Hues in their various values and chromas can be worked into pleasing effects, or color schemes. The ones most often spoken of are monochromatic, analogous, and complementary. In a monochromatic color scheme, only one hue is used—blue, for instance—but it can be used in any number of tints and shades and strengths. Being related, all the monochromatic tones naturally blend. An analogous color scheme is one in which three neighboring hues on the color circle are used, as, for example, red, yellow-red, and yellow. A complementary color scheme is made up of hues that are opposite each other on the color circle, as blue and orange, red and blue-green, yellow and red-purple, or red and blue-green. Complementary hues are the colors of greatest contrast or those most different from each other. They often form a pleasing harmony when somewhat grayed or used on a neutral background. In fact, color harmonies are frequently most pleasing when the hues are not used in their full chroma.

Of colors, Charles De Garmo has written:

> A song is sweet, yet passing brief;
> But color lasts, for 'tis but light
> Resolved to myriad hues,—
> The yellows, reds and blues,
> The oranges, the greens and chief,
> The royal purples, kin to night.

I love their simple mellow shades,—
The deep, dark reds, the ruddy sheen
On polished tropic wood,
And, 'neath the dusky hood
Of night, on quiet seas and glades,
I love the shades of blue and green.

What joyousness their tints inclose!—
The filmy webs of blue and pink,
Pale orange, and the greens
And golds of sunlit scenes;
And then there comes the tint of rose,
Which children love the best, I think.

And would you have the colors blent
In harmony?—then make them one
At heart; or melt with gray
The clashing hues, the way
The clouds on rainy days are sent
To veil with mist the dazzling sun.[1]

How many examples of pleasing color harmonies can you find? Can you name them? Collect examples of color harmonies in dress, furnishings, textiles, or illustrations of flower or fruit arrangements from the current magazines.

7. *Natural Laws as Design Principles*

What constitutes good designing? Whether consciously or unconsciously, certain natural laws or principles of design enter into every plan, whether it be the plan of a painter, an architect, a sculptor, a craftsman, or a commercial designer. The foremost of these principles are rhythm and balance. They govern the arrangement of lines, masses, and colors used in a work of art. Rhythm is movement in a design, but it is more than mere repetition; it carries the eye from

[1] DeGarmo, Charles, in *Essentials of Design* by DeGarmo, Charles, and L. L. Winslow, The Macmillan Company, New York, 1924.

one point to another throughout the design. Balance in design has to do with stability rather than movement. In a symmetrically balanced design, the two sides are alike and reversed. In an occultly balanced design, the two sides are not alike but the weights and spaces are properly adjusted to each other. But balance is more than arrangement to left and right of a central axis. It is a matter of the attractiveness of certain parts. Thus, a small amount of a vivid color will balance a larger amount of a dull color in a design. Harmony in design is the result obtained by the arrangement of line, mass, and color with regard to rhythm and balance. But there must also be harmony of materials used.

8. *Choice of Art Materials*

The materials used in design must be selected according to their appropriateness, and that depends upon the purpose in the mind of the artist; upon the purpose will depend also the structure and character of the work. The structure and character will, on the other hand, determine the materials to be used. Imagine a bottle made of wood, a market basket made of tin, or a house painted in show-card colors! A designer must think both in terms of purpose and in terms of the materials he may use in achieving the purpose. His problem may require that he know the limitations and the possibilities of wood and stone, of metal and glass, of clay and plaster, of paint and other finishes. Wood and stone can be carved, as can natural minerals, bone, and ivory; metals can be rolled, cast, or engraved; glass lends itself to etching; clay can be modeled, cast, fired, and glazed.

Certain materials are more permanent than others. Granite, for example, is hard and durable; white marble is easily worked but not so durable as granite; bronze is durable and at the same time not easily affected by the weather. Paints can sometimes be made more permanent by the use

of a thin coat of transparent varnish. Clay will harden and can be fired and glazed. Oil paints are more permanent than water colors. For poster work indoors, where no permanency is required, show-card colors can be used effectively.

There is a reason for every material and for every line, shape, and color in any work of art. One does not design a decoration and apply it to an object regardless of the shape of the object; rather, the shape determines the decoration, which is, of course, but a part of the object itself and should so be considered. Good decoration cannot be separated from the object itself. We can well learn a lesson from primitive man. His constructive art was crude, but always definitely related to his purpose. Childlike, he saw the similarity of form in his work and works of nature and added crudely appropriate ornamentation just where it was needed to emphasize structure. In his pictorial work, too, primitive man confined himself to essentials, often expressing movement, action, and life in simple lines. He was intent upon recording impressions. We today need to learn to express ourselves as surely and confidently as did primitive man.

9. *The Artist in Action*

In recording his impressions, the painter obtains movement by his skillful use of line and color, and therefore guides the eye of him who would examine his product. He obtains balance by his arrangement of the parts of his composition and by neutralizing the effect of one color by that of another. The architect employs rhythm in the arrangement of columns and windows and in the ornamentation of his buildings. He is able to secure balance by the proper placement of gables, wings, columns, and towers. The sculptor, instead of merely making a reproduction of a figure, catches the natural rhythm of the figure and

expresses it without too much detail, all skillfully balanced. The craftsman-designer attains rhythm and balance in his products just as the painter, the architect, and the sculptor do, for he uses similar methods in much of his work. Industrial art is sometimes considered a form of architecture. The commercial designer obtains movement through the use of lines and colors in his work. Like the painter, he obtains balance by arranging the parts of a poster, or other advertisement, working with both mass and color. In displays he works for balance in his groupings of objects in showcases or store windows, considering line, mass, and color.

In planning a piece of work, the artist often makes many tentative plans in the form of small sketches sometimes referred to as "thumbnail sketches." These are worked over and revised until he has a partial feeling of satisfaction with them. When he feels that he has a number of good ideas, then comes the problem of selecting the one that seems best to meet his needs. Sometimes he makes his decision immediately, at once and unerringly, sometimes he is perplexed and examines carefully each sketch again and again. He may feel that something has been neglected here, something overdone there. It is probably here rather than in the beginning, and in the evaluation of the finished product, that the principles of design work best. In the actual planning of a piece of work, it is best to work freely and quickly without thinking too much about design principles or of anything else irrelevant to the work at hand.

A wide range of experiences is involved in any comprehensive study of the subject of design, which, of course, embraces the entire field of visual art. Consequently, the pupils should not be limited to one particular activity but may well be given a wide choice including the fields of painting, architecture, sculpture, industrial art, and com-

mercial art. The following questions and suggestions could be found helpful in conducting the experiences. In them the pupil is addressed directly, as we shall see.

Would you like to be a painter? If so, first select a theme for your painting. It should be something that you are much interested in, preferably an out-of-door scene. Then make several thumbnail sketches of a simple landscape, from memory or from objects. Now examine the drawings. Do you find mostly curved lines or mostly straight lines? Do the lines lead your eye out of the picture or do they keep your attention centered in the picture? Is the composition well balanced? What medium will you use in painting—transparent water color, oil color, or pastel? Is your picture flat or can you see back in it toward the horizon? Is there sufficient distance in the picture? If not, look around you. What happens to objects as they recede from the eye? Note how small a house near the horizon appears in comparison with a pane of glass in the window. Imagine a spider on a windowpane. How large it is! Now look through the pane to the horizon. Do you see the spider on the horizon? What a mammoth creature it has become—a bloated prehistoric monster ready to devour and destroy everything in its way. It all depends, you see, on the way you look at things. Is not playing with perspective fun?

Now look at a house, slightly from one side. Imagine yourself drawing a line to represent the lower front edge where the building rests. What happens to this edge? Yes, it appears to go up at quite an angle. Trace the edge in the air with your finger. What happens to the ridgepole of the roof as it recedes from the eye? It appears to come down, doesn't it, while the rear edge of the house seems to be considerably shorter than the front. Representing the side of a house in this way is called foreshortening.

Simple observation of plane surfaces that go away from us, called "receding planes," helps us to draw things as they appear to the eye. What happens to colors as they recede into the distance toward the sky? It is readily seen that the chroma of colors lessens as the distance increases—a natural law of color or aerial perspective. Have you suggested aerial perspective in your sketch?

Would you rather be a sculptor? Then perhaps you would like to model or to carve wood or stone, or would you prefer carving soap? Remember that you need not make your figure too realistic. It is yours, you may make it any way you like provided it has a meaning and is interesting. Select as a theme some activity in which you personally are interested, such as games, hobbies, athletics, or any other theme that you would like to work with.

If you are especially interested in commercial art, perhaps you would enjoy making a poster advertising the school play or other school activity, or you might prefer to try to sell some product? Whichever it is, you must be prepared to "put it across." Will your poster cause people to attend the play—to feel that they will miss something if they do not come? Or in your sales poster, will you succeed in making people feel that they must buy your product, that they cannot do without it?

Are you interested in industrial design? If so, you might like to plan and construct some kind of cardboard or wooden box. What can the box be used for? This will determine its size and shape, and to some extent its proportions. Remember that the shape of the box and the use to which it is to be put may call for certain lines, masses, and colors in its decoration if the box is to be decorated. Or would you rather plan a decoration, or motif, for a textile—dress material, curtain material, wallpaper? If so, you may plan a design motif for a linoleum block which when

repeated over and over on a piece of cloth should form an interesting decorative pattern. You will be surprised at the new lines and shapes that will spring into existence as you repeat your motif.

10. *A School Art Exhibit*

There is fun for boys and girls in merely arranging and rearranging a collection of objects of various shapes and colors in pleasing groupings. This is a practical problem, too, for is this not what we do in our homes in arranging furniture, articles on tables, and pictures on walls? A commercial artist in the form of a window dresser plays around with products in a show window until he forms a composition pleasing to himself and attractive to the people who stop to look at the things displayed. The same show-window technique can be used in arranging art products for an exhibit of any kind. The student will find himself making use of the principles of rhythm and balance quite naturally in striving for a pleasing effect. He will not need to think much about these principles in advance, however. Since the aim of art is primarily the meeting of our needs through design, let us all try to meet these needs in the most direct ways possible. This is functional design at its best.

As we arrange the exhibit, we should keep in mind that there is no one way to plan successfully. Probably no two persons would arrange the articles in the same way. Each is a distinct personality and each would work in his own personal way. Therein lies the technique of the individual artist. His design will involve both invention and selection, and he will select materials appropriate to the purpose at hand and will bring to bear upon the materials his own individual thoughts and feelings. Inventiveness is the measure of his creative ability, something that gives personal character to his work and makes it unique.

11. *Possible Outline of Experiences*

General Information: Nature's patterns: uniform arrangement in snowflakes, flowers, pond ripples, shadows, insects—Nature's colors: rainbow, spectrum, light and shade, absorption—Nature's purposes: self-preservation, self-protection; structural and color aspects of animals—Man's purposes: conformation of housing problems to locale—Eskimos, Africans; New England, rural, and metropolitan areas—Transportation problems: utility, comfort, speed—Patterns: design in art, conscious or spontaneous—The artist in action: inspired creation versus careful planning; observation, correction.

Technical Information: Variations in patterns—Resemblance of flowers and insects—Pictorial possibilities of blueprints—Colors in spectrum—Effect of atmosphere on colors in various seasons, climates—Protective coloring of birds, chameleon, reptiles, color in minerals—Building materials at hand in different localities—Analyses of specific colors in terms of hue, value, chroma—Monochromatic, analogous, complementary color schemes—Symmetry of the human figure, posture—Distribution of colors in nature—Art mediums and techniques.

Directed Activity: Finding pictures of snowflakes, observation of frost patterns on windowpanes, mounting of butterflies, moths, insects—Collecting colored pictures of flowers, trees—Bringing in blooming flowers, ferns, leaves; making careful sketches—Visiting zoo, making characteristic sketches of animals—Studying specific types of houses from primitive to present, comparing houses of African to those of Eskimo—Studying color charts—Making scribble design, filling in with balanced distribution of black and white—Visiting exhibits at other schools and museums—Observing labels, lighting, placement—Selecting things for an exhibit—Deciding when and where to hold exhibit.

Creative Activity: A design for book cover or a poster in black and white, using flower, insect, or leaf motif—Blueprint of flower, fern, or leaf arrangement—A landscape defining a particular season—Cover for nature magazine—Clay or wood model of house, train, or airplane—Design for textile in appropriate color harmony—An abstract, or nonobjective, color painting—A

mural painting—A wood carving—An elevation drawing of an interior—An illustration in linoleum or wood block—A school exhibit.

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Chapter X

Form in Art

Works of art would have so much more to offer us if we could only understand them fully. What do you feel when you look at Ryder's "Toilers of the Sea"? Do you feel the mystery, the tragic beauty of the ocean? Can you feel the rhythm expressed in Brancusi's "Mlle. Pogany," or the decorative quality of Manship's "Prometheus"? If not, look at these works of art again and try. The towering Empire State Building may make you feel as though you are going up, up, up. Or it may leave you cold. Other buildings may impress you as though they are part of the natural landscape. The Millard House in Pasadena, Calif., is a good example of this. This very decorative house lends itself beautifully to a romantic background. The quiet dignity of this house and the racing lines of the Robie House in Chicago, Ill., both designed by Frank Lloyd Wright, make each of these buildings quite different in the feelings they produce in an observer. We study these things because they show how art reflects life and meets needs.

In the African villages, the images of gods, the drums, the pottery, and other things are decorated with beautiful

patterns. We may not understand these decorations fully but to the native they have great significance. So is it with the art expressions of the American Indians. Their art is quite meaningless to us until we learn something about the life of the Indian himself as expressed in his work. Modern, nonobjective, and surrealistic art are not understood at a glance. The artist's point of view must be known before we can understand and appreciate his work. Art provides a basis for a common understanding if we will but make the effort to understand.

After the artist has thought out just how he is going to put over his idea, and begins working with materials, the form of the object of his inspiration and effort gradually comes into being. Others may now be able to discover even in the partly finished object the plan that the artist had in mind. Without planning beforehand and seeing clearly the plan in his mind, an artist could never create a great work of art. He cannot say, "I'm going to paint a beautiful picture. I don't know what it will be about, but I'm going to start with my colors and put them someplace on my canvas."

Art form, as the word implies, refers to the *form*ation of a work of art. It has been defined as the use or embodiment of line, mass, and color in any object made well enough to merit the name of art. We may observe this use of line, mass, and color in paintings, buildings, statues, costumes, stage sets, posters, and all other art products. How these three elements of art form are to be recognized in works of art is one of the purposes of the present chapter.

1. *Planning and Achieving*

The artist must, indeed, have a plan in mind before he starts to work. An engineer could not build a great bridge without having plans to work from nor could an architect tell the builder how to construct a building for some par-

ticular purpose without thinking it out in advance, or planning, designing it. How unusual it would be for a sculptor to begin hacking away at a piece of marble in the hope of producing a great statue, if he had no definite plan of what he was attempting to do, if he had made no preliminary sketches or a model in clay. Even football players have plans for carrying the ball to the goal. Girls could not make such attractive dresses as we see them wear if they had had no pattern to help them. A plan always helps one to do something effectively. Let us think back again to the meaning of art form, remembering its three elements: line, mass, color. These three elements should help us in making our first plans.

The musician, too, uses the word "form" to express fineness in a musical composition and in its rendition. Athletes submit to much training to be able to do their work efficiently, to improve their form. Proof has been given in many instances that efficiency in physical endeavors is best obtained by developing rhythm and coordination of movement, resulting in balanced per*form*ance, art form. There is a great difference between the movements of an Indian war dance and those of a French ballet. There are just as great differences in the paintings, sculptures, and utensils made by different peoples and by different people. These differences are often differences in art form.

The sculptor must choose the proper type of line to express his thoughts. Long, vertical, straight lines give dignity to a piece of sculpture; horizontal and curved lines give grace and repose. Short diagonal lines give a feeling of unrest, instability, and sometimes of pain.

2. *The Elements of Art Form*

So much of interest and real beauty is missed if we fail to see clearly and accurately. Artists from the earliest times have gone to nature for their inspiration. They have

really seen nature, wondered at it, and felt it. And out of the feeling has come some beautiful art expression. Each artist has striven to express his feelings in a form that others can see, knowing that others may or may not understand its meaning.

Line is an important element of art form because it is used to help us give a certain kind of feeling in a work of art. Knowing about the expressiveness of line also helps us to get from works of art the impression intended by the artist. As suggested in a preceding paragraph, straight horizontal lines may express dignity while vertical straight lines may express aspiration and exaltation. Curved lines may express grace and repose. The arrangement of lines in a composition also produces a definite effect upon the observer. One line striking another at an angle expresses the opposition of two forces and produces the feeling of not working together in harmony. Lines tending to meet in a certain place will lead the eye to that place and focus attention there.

Mass, the second element in art form, unlike line, is a portion of space, an area, a shape. Our minds are so constituted that we like certain shapes used together and dislike others when they are used together. We can easily realize this when we recall how much better a bunch of colored flowers looks when the flowers have been arranged according to color than when the colors are all mixed together promiscuously. This is why flowers look well in one vase and not so well in another. The flowers and vase that look well together generally have a pleasing relation of mass between them, although line may have something to do with it and color too. Indeed, sometimes it may be color most of all that accounts for the harmony.

Color, the third element of art form, is discussed in considerable detail in the preceding chapter, which dealt with "The How and Why of Design." Color is light. The

colors seen in the rainbow do not appear to be solid like those seen in a leaf or a flower. The rainbow colors are the light from the sun refracted or separated into various hues. Scientists call this breaking up of the sun's rays by a prismatic phenomenon into various color sensations or hues, diffusion. All color is made up of rays of light. Colored objects catch this light, and they give back to us some but not all of the light rays of the rainbow. So, when we look at objects that appear red or yellow or green, we see light that is not diffused but rather reflected. Many of the colors of nature, those of the rainbow, of the clouds at sunrise and sunset, and of the opal are the result of diffusion rather than reflection. Most of the colors of art, however, those of painting, sculpture, and architecture, are the result of reflection. But this is not always the case, since in nature we have reflected color in leaves and flowers and butterflies' wings and diffused color in cut glass and in the diamond, which has been cut to separate the light rays.

3. *Some Materials Used in Creating Form*

In connection with our study of form in art, it will be valuable for us to know something about the materials artists use as well as about the elements of art form that they use in expressing ideas and feelings. In art, color is most often used as paints, stains, and dyes. All paints—or pigments, as they are generally referred to by the artist and the art critic—must contain certain materials which catch the light and reflect it back to us. These materials, or pigments, which are mixed with oil and turpentine for oil painting and with glue and water for water-color painting, are found in many different shapes. Leaves, roots, stems, and other parts of plants contain pigments that can be mixed in this way to give paint. Various minerals and mineral and animal products also give us pigments.

Wood is used for carving and for making furniture and many other things. Many varieties of wood offer the designer just the kind of material required to meet a particular need. Wood can be divided into two main types, soft and hard. In science, the student learns the reason for some woods being hard and others soft, including the influence of environment over all growing things. Trees vary in hardness according to the place where they grow; for example, a mahogany tree that grows in a swamp will have harder wood than one that grows in a dry place. He also learns the two scientific names for the classes of trees from which the various kinds of wood come, deciduous and indeciduous. Paper also is much used by the artist. It is made from fibers from wood and from other materials, such as straw and old cloth.

Metal is used to make many beautiful and useful things. It may be cast and pounded into various shapes. Different metals must be treated differently to make them hard or soft. Some metals, like copper, silver, and gold, become hard when hammered and have to be annealed or heated and cooled rapidly in order to soften them. Steel is hardened by heating and cooling. Many sculptors use metal for their statues. Others use stone; still others, concrete, which is easily mixed for casting. Marble is hard and lasting. Sandstone is soft and less durable, and often lends itself easily to the process of carving, although wood is most easily carved of all. Soap, paraffin, wood, plaster, brick, and stone are all sometimes carved successfully by high school students.

Leather is still another material much used by craftsmen to make attractive useful articles. Leather is the hide of an animal. It is made up of a kind of fiber and cell tissue which, when treated in the process called "tanning," is preserved in much the same condition as it was on the living animal. This material may be used successfully by boys

(Courtesy Meyric R. Rogers, The Art Institute of Chicago.)

Once the artist has experienced his problem, form gradually comes into being through his effort. Carl Milles carving great wood reliefs for the Time and Life Building, New York.

and girls in the binding of books and in the making of such articles as handbags, purses, cardcases, billfolds, and belts.

Textiles is the name given to the group of fiber products which include cloth, tapestries, laces, and felt. Woven textiles may be made with the threads crossing one another, or knit with the threads appearing in a series of loops or knots. High school pupils often make beautiful textile fabrics or decorate them in various ways through dyeing, sewing, and embroidery.

4. *Design and Art Form*

When we speak of design in textiles our first thought may be of a pattern of small figures on cloth. These are often called "designs," but the word "design" has a much broader meaning, as has been pointed out. Thus, we may have a design for a chair, a design for a house, or a design for a school campus or athletic field. If we have only thought of the way a chair, a house, or a building should look, we may correctly consider its plan a design. Generally, however, we prefer to have some kind of drawing to represent our thoughts before referring to a plan as a design. This drawing generally includes the use of all three elements of art form—line, mass, color. Textile design embraces the entire formation of a textile fabric, including the kind of fiber used, its arrangement, color, and other qualities, as well as the decoration employed to enhance its beauty.

In Chapter IX we saw how yellow drifts into green-yellow and green-yellow into green. We can say that green differs from red, yellow differs from green, and so on. The word for this difference or dimension is "hue." We know also about another dimension of color called "value," the difference in light and dark. Large areas of a dark color appear heavy. Dark and light are often used in contrast to make one part of a design stand out against

another part. We have also learned to understand the difference in the strength or vividness of a color, its intensity, or chroma, the third dimension in color. The artist makes much use of a chroma. In the painting of a landscape, the strongest colors are never in the background. Why?

Elsewhere in this book you have learned also about linear perspective, or the differences in apparent size and shape of articles near and far away as they look to the eye, and about aerial perspective, or the differences in color. Color also has the power to lead your eye to certain points in a composition; in other words, it is used by the painter as an element of composition apart from its use in representation. We have a liking for some masses, colors, and lines when they are used together. The artist plays one element against the other in order to secure balance in his design.

5. *Materials in the Making*

It may be desirable for the teacher to plan with the class a visit to a sawmill, planing mill, lumberyard, or factory in connection with this unit in order that the pupils may get a clearer notion of certain things that influence art form. In the sawmill they see the trunks of trees as logs, as they have been brought in from the forest. They may become acquainted here with the different kinds of woods and how they are sawed up for use. They can find out also to what uses the various woods are put and how the qualities of the woods used will influence the form of the articles that are to be made from them.

The class might also be taken to visit a stonecutter at work, or a sculptor's studio. Things to be looked for here would be the influence of the material and the processes over the form of the finished statue. The students should learn that stone is a hard substance and that long slender parts cut out of it are scarcely possible, and certainly not

practicable. It has been said that a good piece of sculpture can easily be rolled downhill. This means that the piece of sculpture should be compact in form.

6. *Experimenting with Art Form*

Many opportunities for experimentation with art form are provided by the school stage or theater. Here the teacher may encourage the boys and girls to experiment with the stage lights and the colored gelatin sheets that are placed over them. They may mix colors in this way so as to produce the different hues just as they have done with water-color paints. They may try showing different colors on the same spot and observe the resulting color. They may study the colors that appear in the shadows cast by objects on the floor or walls. Such experiments should lead to valuable experience and perhaps to some important discoveries that may be useful in staging a play.

Carving is unusually rich in its possibilities for experimentation. Nearly every boy who lives on a farm carries a pocketknife because it is so useful. Boys whose homes are in the city also have found out how handy a knife can be. Scouts are taught how to use theirs. A well-sharpened knife made of reliable material and used in the correct way is often a useful tool. Whittling wood with a pocketknife has been a pastime for boys for many generations. A knife has often been the only tool used by them to produce many artistic pieces of wood carving. Many a whittling has resulted in no more than a pile of chips, but girls as well as boys may sometimes whittle to a purpose.

The suggestions that follow are addressed to the pupil himself. They are perhaps typical of an approach to the subject which might under certain conditions be productive of desirable results. A similar approach might be used if modeling rather than carving were to be the activity. If you decide to try wood carving, you might get a good start

by forming an idea for the thing to be made, from the piece of wood itself. Select a piece of wood that you like for its texture, color, and size. Then let the wood itself suggest an idea to work up. What does the piece of wood suggest to you? Now try a wood chisel and a mallet if you can get one, and also try a sharp pocketknife and perhaps a razor blade. You will soon discover one tool that you can handle better than the others. When you finish carving, the object will give you an opportunity to do a really fine piece of work in putting an excellent finish on it. Some woods may need only a coat of wax as a finish, while others will need filler and possibly stain. It is part of the wood carver's art to put the correct finish on his work. Perhaps we ought to say "into" his work because the finish should penetrate deeply and become a part of the work itself.

7. *Materials and Form in Art*

Materials have a way of saying something to us. The artist chooses the particular material best suited to his purpose to make clear to others what he has to say; paint, paper, wood, metal, stone, leather, textiles, plastics, or a combination of several of these or other materials. The saying of things with materials, with art mediums, may all be summed up in the term "art form." No matter what medium an artist chooses to work with, he must use line to guide our sight or interest, mass to keep it there, and color to add vitality and interest. It is a combination of these three elements that the artist uses to provide art form. Art form means much more than merely the shape of the object. Line: the edges of the object or the limitations of its parts; mass: shape, areas, contents of the parts; color: hue, value, and chroma—all are used together in the making of beautiful things. These elements are a large part of the artist's equipment in his endeavor to convey through materials the idea that he has in mind.

8. *Possible Outline of Experiences*

General Information: Painter's definite idea before beginning—Sculptor's preliminary model in clay—Architect's and engineer's plan—Pattern necessary for a dress; plan, for a piece of furniture—Effectiveness resulting from plan—Poster artist's layout—In dramatic art, planning to convey idea or emotion desired.

Technical Information: Three elements of structure: line, mass, color—Rhythm as important principle—Harmony as result of observing art principles—Expressiveness of line and its power—Mass as area—Color as light—Materials and how to select them: wood, paper, metal, leather, textiles—Design represents thoughts: using the three elements of structure—Design and meeting of needs in best ways.

Directed Activity: Finding three elements in art form in pictures—Finding strongest colors used in pictures of interiors and in landscapes—Invention of optical illusions, using lines—Experimenting with lights and with materials.

Creative Activity: Lighting the school stage—A design pattern in color, in shape other than circle—Modeling in Plasticine or clay—Carving in soap, wood, brick—Exhibit of work done in connection with the unit.

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Chapter XI

Art and Recreation

How many kinds of people there are in the world—white ones, black ones, yellow, brown, and red ones; there are tall ones, short ones, fat, thin, weak, and strong ones. There are Englishmen, Frenchmen, Italians, and Swedes. We could go on and on like this, naming dozens of different kinds of people, but regardless of color, size, or nationality, all people can be put into just three groups—those who work, those who play, and those who both work and play. To which group do you belong? The typical man of the future will undoubtedly be one who both works and plays. When we use the word "play" we mean recreation, of course, leisure diversion, pleasurable employment. Since "all work and no play makes Jack a dull boy," the question of recreation must be important. Someone has aptly said that "yesterday belonged to the worker, but tomorrow will belong to the wise user of leisure."

To have a well-balanced life we should all have some work to do in the world and we should have something we like to do in our leisure time, an avocation. The latter is what is meant by recreation. Incidentally, the study of art will help us to understand each other better. When we work

together in the art room we must consider others in the things we do. We shall judge each piece of work, good or bad, keeping the thought of the maker in mind. We shall learn to understand and to tolerate others even when they may not agree with us. We should become broader minded and more understanding of the other fellow as we continue in our study of art.

1. *Hobbies*[1]

The word "hobby" refers to a toy horse, made of wood, which children love to ride. A hobby is what we do outside our regular occupation because we enjoy doing it for its own sake. A hobby is different from a fad, which is something one does because other people are doing it. There is a hobby for everyone but everyone has to find one for himself. Many great men have become so because of their hobbies. Frederic Goudy left his bookkeeper's stool to become the world's leading designer of printer's type. Calvin Coolidge had no hobby, and his days became empty and few after he left the White House. Let us all learn to enjoy every minute of our leisure.

Hobbies can be divided into four groups: (1) doing things; (2) making things; (3) acquiring things, or collecting; (4) learning things. All leisure-time occupations, not making or collecting, may be put into the class of doing things. Some of these are sports, games, dancing, dramatizing, singing, or playing a musical instrument. Making things includes the hobbies that concern those who are especially inclined toward artcrafts. Activities of various kinds are in this group: making pictures in oil, water color, crayon, or charcoal; sculpture, modeling, or carving; textiles, batik, needlework, weaving, block printing; stagecraft, masks, marionettes; stencilwork, paperwork, and woodworking. Many more activities might be listed in this group; you may

[1]Laura L. Alford, art teacher, Western High School, Baltimore, Md.

(Photograph by Wilson Knauff, Baltimore.)

A hobby is different from a fad. There is a hobby for everyone, but everyone has to find one for himself, as did this junior high school student.

be able to add some others such as bookbinding, photography, jewelry making, pottery. Each of us should have at least one hobby; some people have more than one. Many of us may like to engage in more than one kind of activity in our leisure time.

The hobbies that we group under the title "acquiring things" include the making of collections of pictures, postage stamps, nature specimens, such as minerals and insects, and other things. Some people collect beautiful old glass bottles chosen for their attractive colors and unusual shapes. Others collect old china with unusual decorative patterns. A group of colorful pieces of glass seen in a window against an uninteresting landscape forms a pleasing decoration in a living room. Old dishes are sometimes appropriately displayed in a corner cupboard in the dining room. Collecting coins or postage stamps constitutes another worth-while hobby, especially if used as a point of departure for the study of their art.

It may be that a person does not either make or collect things, but prefers to spend his leisure simply looking at things or learning more about them. Such a hobby would take him often to the art or history museum and to the public library. Some people spend much of their spare time digging into the history of art and into the lives of individual artists because of an interest in their works stimulated in school or college.

We may laugh at someone's yen for collecting bottles or stamps or for making toy animals out of tin cans, only to find ourselves suddenly taking up some equally strange pastime. Hobbies are sometimes the most unexpected things in the world, and they attack all sorts of people.

2. *Ride a Hobby*

The following introduction to hobbies is presented at the high school student's level with the hope that it will be

suggestive to the teacher who would conduct classroom experiences in art to the end that their recreational advantages may carry over into the lives of the boys and girls.

Do you like to draw? Do you like to paint? Do you like to make things out of wood or metal? Do you like cartoons and wish you could make some yourself? Do you collect stamps, old coins, or pictures? Are you interested in the theater, in scenery and in lighting? What do you like to do most? What is your hobby? If you do not have a hobby, find one. It will make your life happier and fuller.

3. *A Marionette Show*

What could we do as a class that would take in the greatest number of the different hobbies? Might we not put on some sort of show? What kind of show would allow us to paint, model, cast, work in wood and textile materials, and give us a taste of almost all the art activities we have mentioned and perhaps some others? A marionette show?

Marionettes are little figures made of wood or other material which will dance, walk, and move about by means of strings pulled from above. They are as old as civilization and have been found in every corner of the world from Egypt, India, China, Greece, Rome, to France, England, and America. For many centuries people used them in their religious ceremonies, the word "marionette" meaning "Little Mary." In America today, the marionette has a growing list of friends. Probably the name best known is that of Tony Sarg, a charming artist who has taken his marionette shows on tour to the largest cities in our country.

4. *A Play for the Show*

If we are going to produce a marionette show the first thing we must think about is the play. If you go to the library and ask for a marionette play it is possible that the librarian will have little to offer you, but if you ask her for

a good story that you could make into a marionette play you may be surprised at the number of books she could place before you. Let us now see if we can think of some good stories to be made into a marionette play. How about *Tom Sawyer, Robin Hood, Ivanhoe, Treasure Island,* or *The Christmas Carol?* If you prefer to be original and decide to write your own play, this would be better though more difficult.

In changing a story into a marionette play, first make a list of the most important incidents in the story. Then decide on the number of scenes that would be necessary for the play. Next, decide on the number of characters required. Be sure to choose only those characters and incidents that are most important. You will undoubtedly have a good play if you keep the following in mind: the play must not be too long, it must begin in the right way, it must hold together, it must be interesting at all times, it must have a satisfactory ending.

After the play has been written and the scenes and characters decided on, a marionette stage will be needed and characters to perform on it. Suppose the class now divides itself into two groups, one to make the stage, scenery, and properties, and the other to make the marionettes.

5. *Making a Marionette Stage*

A small stage is needed for the show. Before beginning construction, plan the stage carefully considering height, width, and depth, materials and details. In order to make the stage of wood, it is necessary to know something about the use of woodcraft tools. The following directions will be helpful: First, how to use a crosscut saw. Raise the piece of wood to be cut high enough to prevent the point of the blade from striking the floor. To start the cut, rest the blade on the waste side of the cut, support the side of the blade with the left thumb and draw the saw toward you

a few times until a slight groove is formed, then cut straight with a full stroke. In crosscutting it is best to maintain an angle of about 45 degrees between the tooth edge of the saw and the face of the work. Extending the forefinger alongside the handle aids in guiding the blade. Take long, easy strokes and make each stroke do the work expected of it. Supporting the waste side of the work will prevent the wood from breaking when the cut is nearly completed. Do not attempt to twist off strips of waste wood with the saw blade.

Next, how to use a ripsaw. The position for ripping should be similar to that used in cutting across the grain; it should be such as to permit long, easy strokes. The user who does most of the cutting with a few inches of blade, in the middle of the saw, not only has difficulty in keeping the line of the cut straight, but he dulls the saw more rapidly because a few teeth are called upon to do all the work. Full strokes are desirable in both ripping and crosscutting. In ripping, the cut should be started with the teeth near the point end of the blade. Ripping is best done with the work supported on a sawhorse, but if the board is held in a vise it should be placed at an angle of about 45 degrees to the tooth edge of the saw. In both ripping and crosscutting, it is best to cut on the waste side of the line so as not to waste any of the material.

6. *Scenery for the Marionette Theater*

When the plan of the stage is finished the scenery must be accounted for. This should be simple, so as to give the marionette actors enough room to move about. The stage must make a well-composed picture. Make sketches of the scenes as you want them to look. Measure your stage and make a careful plan of the floor.

When you have made a design for each scene, you will be ready to begin the actual work. For the backdrop you may use beaverboard, heavy paper, canvas, or muslin stiffened

by a thin coat of boiled starch. After measuring the height and width of the backdrop, cut out the material you have chosen. Place in position on the stage and sketch your design on it with charcoal. Next, step back in order to see if the arrangement, perspective, and scale are correct. Then take down the backdrop and lay it flat on a table. With your scenery in this position, carefully fill in the details and paint it.

Show-card or water colors may be used for the painting. However, show-card colors are rather expensive. Dry water-color powders are practical and inexpensive. If you use this medium, add to the color mixture several tablespoonfuls of flake glue dissolved in water. Use large brushes for painting. No matter what the play, you will make no mistake by keeping the background simple. Remember that some of the greatest scenic artists of the present day use no scenery, in the ordinary sense, at all. They secure their scenic effects simply by means of curtains and lighting.

Since the marionettes are shown against a background, this background is of great importance and must be carefully considered throughout the planning. If the marionette figures are to be seen to advantage, they must for contrast be either darker or lighter than the scenery in front of which they are to be shown. Contrasting hues should sometimes be chosen with this end in view. The background must be so unattractive or subordinated, however, that the eye can follow the marionettes without being lost in the details of the background. If there are too many colors or too many details in the background, this can scarcely be avoided.

7. *Properties for the Theater*

A good marionette show will require well-chosen properties. All these should serve a purpose or a practical need.

The properties should always represent as closely as possible the things used in the time of the play and of the country of the play. They should, of course, be made to scale. Therefore, it is necessary to be well acquainted with the life, customs, and manners of the people who lived in the particular place and at the time the play is supposed to take place. The library and the museum are reliable sources of such information.

When you find a helpful illustration anywhere, make a sketch based on it and keep careful color notes. The materials generally used for making properties are wood, cardboard, tacks, glue, cotton tape, papier-mâché, gesso, and paints. The tools needed are hammer, coping saw, scissors, and knife. Keep your sketches of the properties in front of you for constant reference as you work.

Standards of craftsmanship should be high. The plans should be carried out in as accurate and beautiful a way as possible. Tools and materials should be kept in condition. Knives should be kept sharp, brushes and palettes, clean.

8. *Making the Marionettes*

While the stage is being made, the scenery painted, and the properties constructed, another group may work on the marionettes themselves. There is scarcely a thing a marionette cannot do if it is properly made. Its great flexibility of neck, waist, and ankle makes it possible for it to bow, kneel, sit down, turn its head, dance, play a musical instrument, even climb a wall, or perform any number of lively tricks.

Marionettes should be as individual as any human being, both in appearance and in character. Before you make your marionette you should have clearly in mind the character you wish it to portray. If you want your marionette to be individual and original you will have to be so yourself.

Before beginning the actual construction of a marionette, it is well to make a working drawing of the whole figure. Then make drawings of the face, considering the age of the character to be portrayed. With these drawings in front of you, model in Plasticine the general egg-shape form of the head. Add material for the neck. Draw a light line on the Plasticine to locate the brows, the length of the nose, and the position of the mouth. Holding the head in your hands, place your thumbs just below the line of the brows, and firmly press down and out to form the eye sockets and up to form the brows. Then build up the nose and lips. Ears may be modeled and put on, although they are sometimes unnecessary. With a sharp stick or the fingers, add character to the face wherever needed.

When the head is finished, you may make a plaster-of-Paris mold of it. Take a small cardboard box slightly larger than the head and grease the inside of it and the head with vaseline. Then mix about half a pint of plaster-of-Paris powder with enough water to make the mixture about as thick as cream or batter. This must be done quickly, for the hardening process cannot be stopped once it has begun. Pour the mixture into the box until it is about half full. Then place the head, back down, into the soft plaster until half of it remains exposed. Allow the plaster of Paris to harden, and then grease the exposed portion which projects, the face, and the upper surface of the plaster. Now mix more plaster and cover the face entirely. Next day remove the box; the two halves of the plaster cast can easily be separated and the original model of the head removed.

You are now ready to make the head, using the plaster casts for forms. Grease the inside of each of the molds with vaseline or liquid soap. Press plastic wood into both molds and place the molds together. Bind in this position and allow the plastic wood to dry. In drying it will shrink

a little and should therefore come out of the mold quite easily.

In planning the marionette it should be remembered that the body consists of trunk, arms, and legs. Two pieces of wood properly shaped will be needed. For an 18-inch marionette, the shoulders should be 4 inches wide and the hips 3 inches wide; for a 16-inch woman, shoulders 3 inches wide, hips 3 inches wide; for a 15-inch man, shoulders 3 inches wide, hips 2½ inches wide; a 13½-inch man, shoulders 2½ inches wide, hips 2½ inches wide.

In making the arms, start with the hand. Its length is that of the face, from the chin to the line of the hair. Take a piece of lightweight pliable wire sufficiently stiff to hold its shape, attach to a piece of wood for wrist, and bend wire to the shape of a hand. Wrap the bent wire with adhesive tape in order to build up the hand. The built-up tape can be pressed into any number of lifelike positions.

The arms may be made in one piece from white stockings or other soft cloth or leather. Old gloves may come in handy here. Sew across the top, then stuff the upper arm rather lightly with cotton. At the elbow, sew twice across, leaving about ¼ inch unfilled between the rows. This will make the arm flexible at the elbow. Now stuff the lower arm until it is quite firm. Now insert and sew the hand into the opening at the wrist. Attach a small piece of tape to the top of the upper arm and sew to the shoulder.

Each leg should be made in three pieces, an upper and a lower part and a foot. To make the parts of cloth, cut, sew, and stuff as you did the arms. If the marionette is to be a dancer, a stocking should cover the entire leg to hide the knee. If the feet of the marionette are to show, then the foot may be made with wire and tape like the hand. The arms and legs, hands and feet, may, of course, be made out of wood but this requires more skill and much more time.

The chest part, or trunk, of the marionette may be made of wood, padded front and back if desired. To attach the head to this part, place a screw eye in the bottom of the neck. A brad driven through the trunk from front to back and through the screw eye will secure the head and allow freedom of movement in any direction.

For the best results, cover the face and hands with oil paint. The hair may be painted also, but it is better to use a stocking foundation on which you may sew yarn, crepe hair, silk, or real hair, or whatever you may have at hand to use for the purpose. Then glue the finished wig on the head.

Before costuming a marionette it is well to consider the scenery against which it is to appear. If the background is light then the costumes should be somewhat darker and of a contrasting color. The reverse also is true: if the background is dark, the costumes that appear against it should be lighter. This contrast of light and dark need not be so strong as to be unpleasant, however. Remember also that the costumes of the most important characters should be more outstanding than those of less important characters.

These directions are not all meant to be followed absolutely, but are offered merely as suggestions. You may go beyond them if you like. Every boy and girl ought to feel free to express his own ideas and to experiment. This should be true in writing the play, in making the marionettes, in planning and constructing the properties and the scenery, and in experimenting with the lighting. When the play has been chosen, the puppets made ready, and the stage all set, then "On with the show!"

9. *Possible Outline of Experiences*

General Information: People of three types: those who work, those who play, those who work and play—Life well balanced

with vocation and avocation—Hobbies: occupations for leisure time—Dividing hobbies into four groups: (1) doing things; (2) making things; (3) acquiring things; (4) learning things—History of marionettes: Egypt, India, China, Greece, Rome, France, England, America—Tony Sarg's marionettes—Marionettes as actors in plays.

Technical Information: Choice of a hobby—Using crosscut saw and ripsaw—Mediums for stage and properties: wood, cardboard, tacks, glue, cotton tape, paper, paints, coping saw, and scissors—Materials for backdrop; beaverboard, heavy paper, canvas, charcoal, water-color paints, show-card colors—Flexibility in marionettes for performance and movement—Individuality in a marionette.

Directed Activity: Collections: old glass bottles, old china plates, colored pieces of glass, cartoons, stamps, coins—Collecting snapshots and nature specimens—Participating in: sports, games, dancing, drama, and music—Visiting museums and libraries—Studying scenery and lighting effects in theaters—Choosing a story—Knowing life, customs, manners of people living at the time and place of play.

Creative Activity: Pictures done in oil, crayon, water color, charcoal—Sculpture, modeling, carving, batik, block printing, needlework, weaving, stencilwork, paperwork; basketmaking, metalcraft, leatherwork; work with cork, felt, sponge—Play for a marionette show: making the stage and properties for the theater; making the marionettes; experimenting with lighting—Putting on the show.

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Part III

HUMAN RELATIONSHIP

How Art Helps Me to Get Along with Others

Chapter XII

Art and Time

In so far as any particular work of art is concerned, it may be said to exist in space and also in time. In it, however, time is generally stationary; that is, no passage of time is suggested. There are in painting and sculpture, however, some examples, such as "The Arrival at Bethlehem" by Cornelis Massys, in which events taking place at different times are recorded in a single composition. In the motion picture we have a modern example of visual art in which the passage of time actually takes place before our eyes. The animated cartoons and plays of Walt Disney are examples of cinema art in which the artist has created everything, even the actors themselves. This is distinctly an American contribution to contemporary art. Works of art have been produced wherever and whenever men have lived upon the earth.

1. *Prehistoric Art*

If you visit a museum or listen to a lecture about art or read books about it, you will notice that sometimes, instead of being given the date when a picture was painted or a building erected, or something made, you are told the period

to which it belongs, and unless you know what these names mean you are confused. Prehistoric times, or the prehistoric period, is time before events could be recorded, before history. The period embracing ancient art extends from the beginning of recorded history to around A.D. 500 and includes the civilizations of Egypt, Chaldea and Assyria, Greece and Rome. The medieval period extends approximately from A.D. 600 to 1300. It includes early Christian, Romanesque, and Gothic art. The period known as the Renaissance extends approximately from A.D. 1300 to 1600. Time since 1600 is generally referred to as the modern period. Present-day art is, of course, contemporary.

Many thousands of years ago people whom we now know as primitive men lived, not in houses as we do today, but in caves. These caves have been found in France, Austria, and Spain. They were used as homes so long ago that it is hard even to guess how old they really are. On the walls of these cave homes pictures have been found, and by studying these pictures a great many things have been learned about these people of long ago. They hunted, danced, and had a religion of their own. On the floor of these caves have been found stone and bone tools used in hunting and making clothes. Pottery made of clay has been discovered too.

Art is, as has already been pointed out, the result of the desire to create something, to tell a story, and the cave men of prehistoric times were artists in the truest sense of the term. Even though they could not write, we know considerable about them because of the pictures they drew on the walls of their cave homes. These pictures are generally referred to as "prehistoric paintings" because they belong to the prehistoric period. They were first discovered by a little girl who had gone with her father to explore a cave in the Pyrenees Mountains in Spain. She saw what she thought was the picture of a cow on the wall. It was not a

(Photograph from Walt Disney Studios, Burbank, Calif.)

Artists, at work on Beethoven's Pastoral Symphony sequence of *Fantasia*, make it possible for millions to participate vicariously in beautiful rhythmic patterns of color and sound synchronized in time and space.

picture of a cow but of a bison which once lived in Europe long before cows did. The bison was similar to our North American buffalo. We can tell this from these pictures of it painted with earth colors. The outline was engraved or cut into the wall and then colored earth, mixed with grease, was used to make the picture more lifelike, or realistic. There are many cave paintings in both Spain and France and they depict many different animals—mammoth (a prehistoric elephantlike animal), deer, boar, bison, wolves, and horses, and also people. The early pictures of people were not so good as those of animals because it was much easier for these people to draw an animal than the human figure. The cave man depended upon animals for his food and therefore he was familiar with them and knew their habits. Killing and skinning and cutting up animals for food necessarily taught him facts of their size, shape, and proportions, which artists today refer to as "anatomy." The study of anatomy has to do with the muscle and bone structure.

2. *Ancient Art*

The oldest buildings in the world are not homes but tombs. They are huge four-sided pyramids, tombs of the kings of ancient Egypt. In them were placed their bodies, together with personal belongings such as furniture, clothing, utensils, and trinkets, to serve in the life beyond the grave, for the ancient Egyptians believed that everything had a duplicate, or "double," into which would come back on Judgment Day the soul of the thing thus represented. This was why the people of Egypt embalmed the bodies of rulers, that on their return to this world their souls might find and occupy again the bodies from which they had escaped. A great many Egyptian temples also are still standing. The Egyptians believed in size, and they built everything large. All their great buildings and statues

were made of stone; that and the dry climate constitute the reason for their preservation for four or five thousand years. The temples were surrounded by thick walls and gave the general appearance of being low and horizontal, at right angles to the line of the horizon.

The Egyptians painted decorative pictures on the walls of their temples, using red, yellow, green, blue, brown, and black. These pictures were full of meaning. Where the human figure is represented, they show the side of the head with a front view of the body and the side view of the legs. The pictures are usually of battles, religious ceremonies, and the everyday life of the people.

About the same time that the Egyptians were building with stone, the Assyrians and Chaldeans in Asia Minor were using sun-baked brick. None of their temples are completely standing because the brick was not so durable. These people decorated their buildings with alabaster carvings and tile. Alabaster is a beautiful soft stone, a kind of gypsum. The tiles were baked in a hot fire and were glazed or covered with a surface of glass.

The Assyrians made statues of their kings as did the Egyptians, but the Assyrian statues are not much like those of the Egyptians. The head of the Assyrian king statue was that of a man, the body that of a bull with wings. Such a statue was called a "cherub." The alabaster carvings of the Assyrians show men with great muscles and kings with heavy beards. Any person who was anybody in ancient Assyria had to be represented with a beard. Hunting and fighting were the chief pastimes of the kings, so most of the relief carvings show them engaged in these activities.

Another ancient people about whom we know a great deal because of their wonderful art are the Greeks. It is unfortunate that today we have few Greek paintings. The reason for this is that their pictures were done on perishable

material. The Greek paintings that have come down to us are for the most part those on pottery—cups, bowls, and vases. The Greeks made many statues, mostly of their gods. They showed little or no clothing on these statues so as not to hide the beauty of the body. The Hermes of Praxiteles is one of the best known examples of Greek sculpture. It shows the god holding the infant Dionysus.

There are some Greek statues which do show the Greek people themselves just as they looked in real life. These are small, only a few inches high, and are made of terra cotta, which is baked clay, like our ordinary flowerpots. These little figures were buried with the bodies of the people they represented. They were dug up first in a town named Tanagra, and for this reason they are called "Tanagra figurines."

The Greeks were builders as well as sculptors. One of the most beautiful buildings in the world, the Parthenon, erected more than two thousand years ago, hasn't a straight line in it! The reason for this is that the Greeks wanted our eyes to *see* the lines as perfectly straight. So they made them seem rather than be straight. Since a large, flat floor seemed to them to sag in the middle and a perfectly straight-sided column seemed thinner in the middle, they overcame these defects by using lines that curved slightly. They used three kinds of columns on their buildings and by them named the type or order of architecture used—Doric, Ionic, Corinthian. The Parthenon was built to hold the statue of Athena, the Goddess of Wisdom. The statue was made of ivory and gold and was 40 feet high. Athena was made by a sculptor named Phidias. The best Greek sculpture of the human figure is both serene and restful. In it there is always a perfect balance between mind and body.

The columns of the three orders of Greek architecture—Doric, Ionic, and Corinthian—are distinguished respectively by simplicity, elegance, and luxury. This system of construction and decoration was both consistent and

refined. The architects of ancient Greece had many building problems that were not very different from those confronting the architect of today. The solution of some of these problems, by the methods employed in ancient Greece, would doubtless help the present-day architect in America to improve his art, for the Greeks endeavored to meet the needs of their time as directly and beautifully as possible.

The Greek artists laid much stress upon symmetry, rhythm, and the harmonious arrangement of parts, and on their combination into an artistic unity. They assumed that beauty results from the qualities of objects themselves. Thus, they were able to fashion masterpieces that were of almost perfect proportion and beauty. No utensil, no matter how menial its use, was deemed by the Greeks as undeserving of careful planning and skillful workmanship.

Our vases are usually made to hold flowers and are of glass, china, copper, or silver. The Greek vases were made of clay and were used to hold anything liquid such as water, wine, perfume, oil, and ointments. They had a name for each different shape. Some of the better vases were decorated with pictures in silhouette, red figures on a black background or black figures on a red background. They used heroes and scenes from the lives of the gods for these decorations.

Unlike the Greeks, the Romans believed in power by force. Their buildings were huge and domineering. They used the Greek orders, but in many cases they added details. Some of the Roman buildings were several stories high. This was made possible by the use of concrete.

The Romans not only erected tall buildings, but they constructed a network of paved roads throughout their empire. These roads were in good condition all the time, making it easy to move their armies wherever and whenever required.

The Romans made many statues, but they were made to look like the people they were intended to represent. Some of their portrait statues were busts. All Roman families

who could afford it had busts made of each member of the family. These were handed down from one generation to the next and were carried in the family funeral procession when the person died. The Romans also made vases, dishes, and fine silverware.

During the time that the Romans were in power in Europe, Jesus was born. The followers of Jesus were, however, much oppressed. They could not build churches but had to worship in secret. They dug tunnels in the earth, called "catacombs." It was on the walls of these catacombs that some of the first Christian pictures were painted. About the year 300, Constantine, Emperor of Rome, adopted the Christian religion, which made it possible for the Christians to come out of the catacombs and build their churches aboveground. Constantine moved the capital from Rome, in the West, to Byzantium, in the East, and changed the name of it to Constantinople. Here was built a church now known as Santa Sophia. It was planned and erected by Justinian and his Empress Theodora in the form of a Greek cross. Where the bars of the cross intersect, a huge dome rises to a height of 180 feet. The church has many large windows and is decorated with mosaics, marble, and glass. This type of architecture is known as "Byzantine." Santa Sophia is now a museum. Many of the early religious pictures were done in mosaic, as were those of Santa Sophia. Mosaics are pictures made up of small pieces of stone or colored glass, fastened to the wall or floor by means of some kind of cement. The mosaic wall decorations often had a gold background.

In Central America, there have been dug up gold, copper, and bronze statues and ornaments, which were also made many centuries ago. In this same country, cloth as fine and beautiful as any we make now has been found. In the southwestern part of our own country lived the cliff dwellers, who, like those in early Europe and South America,

made tools of stone and bone. They used dishes and made ornaments to wear, such as beads, rings, and bracelets.

3. *Medieval Art*

Early Christian architecture in the West was characterized by brick walls, wooden ceilings, and long colonnaded interiors, with rich mosaic and marble ornamentation. In the East, it was characterized by large interiors, round arches, and domes. Romanesque architecture continued to make use of the round arch.

When the Western Roman Empire was destroyed by the invasion of the Goths and Huns from the north, most of the works of art were destroyed, and for 600 years Europe was upset politically. These years are sometimes called the "Dark Ages," although some beautiful things were produced during the period. The leading art center of the world at that time was still Constantinople. The early Christians built churches much after the style of the old Roman buildings. The Roman basilica, intended for large assemblies such as courts of justice, seemed well suited to religious services. The basilica was a rectangular building, divided by two rows of columns into a nave, or central portion, and aisles, with the nave rising higher than the aisles and forming a clerestory pierced by windows.

A people called the Saracens invaded this Eastern Empire and had much to do with the type of decoration used. They did not use any human or animal forms, just plain geometric patterns. Gold, marble, and brilliant colored glass were used in the mosaics. Up to this time arches were round or nearly so. The Saracens, however, began to use pointed arches, which were very graceful. Fine stone carvings, representing nature forms, were used on many buildings.

The influence of the Saracens changed architecture considerably, and so did the influence of the Goths. Up to this time the buildings were heavy in appearance because

of their thick walls. By using the pointed arch and outside supports called "buttresses," builders were now able to use less wall space and thus provide more space for windows. These new buildings were tall and had huge windows and the interiors were much lighter. This type of building was later to be known as "Gothic."

During the Middle Ages nearly everyone in Europe was fighting, with the exception of the monks, who lived together in the monasteries. The church, it seems, was the only organization that did not use its money to kill and plunder. The American poet, Thomas Bailey Aldrich, gives us an intimate picture of one of these monks in his poem called "Friar Jerome's Beautiful Book,"[1] from which we quote:

To those dim alcoves, far withdrawn,
He turned with measured steps and slow,
Trimming his lantern as he went;
And there, among the shadows, bent
Above one ponderous folio,
With those miraculous text were blent
Seraphic faces; Angels, crowned
With rings of melting amethyst;
Mute, patient Martyrs, cruelly bound
To blazing fagots; here and there,
Some bold, serene Evangelist,
Or Mary in her sunny hair;
And here and there from out the words
A brilliant tropic bird took flight;
And through the margins many a vine
Went wandering—roses, red and white,
Tulip, wind-flower, and columbine
Blossomed. To his believing mind
These things were real, and the wind,
Blown through the mullioned window, took
Scent from the lilies in the book.

[1] Aldrich, T. B., "Friar Jerome's Beautiful Book," Houghton Mifflin Company, Boston, 1896.

(Courtesy of Walters Art Gallery, Baltimore, Md.)

Many beautiful decorative objects were produced by the craftsmen of the Middle Ages, among them this charming thirteenth century Flemish representation in yellow bronze of "Sampson and the Lion."

The monks did us a great service, for they saved much of the ancient writings and themselves produced many beautiful manuscripts which have come down to us. These they illuminated, that is, they decorated the pages, headings, and bindings with beautiful decorative patterns and tiny colored pictures or miniatures used as illustrations. The monks also produced many other works of art which were used in the service of the church.

4. *Art of the Renaissance*

Gradually the fighting in Europe quieted down and the people began to live more normally again. This brought about the rebirth of civilization known as the "Renaissance." Under these more favorable conditions, art again took its place as an activity in which an increasing number of people engaged. Craftsmen other than the monks began to produce good art. Much of this work can be seen today in our art museums, and its influence can be seen in our own buildings.

One of the men whose work we still admire was a sculptor, painter, architect, and poet all at the same time. His name was Michelangelo Buonarroti. Even though Michelangelo always considered himself a sculptor, his best known work is a series of pictures painted on the ceiling of the Sistine Chapel in Rome, high above the floor. Bible stories furnished the themes for these pictures. The figures look so round and solid that they are called "sculpturesque."

You know how quickly plaster gets hard or sets, so you can imagine the difficulties which had to be met by the mural painters of this time who worked in this material. The plaster surface to be painted had to be smooth and freshly done, so only a space which could be painted in a day was plastered at a time; then the artist painted just that much. What he intended to put on that patch of

fresh plaster had to be carefully planned, for he could not go back and correct mistakes, except by removing the plaster and starting all over again. In fresco painting, the colors become a part of the wall as soon as they are combined with the wet plaster. This means that the artists who were chosen to decorate the walls of buildings during this period had to be able to draw accurately and rapidly; they had to know exactly what they were going to do before they began.

Michelangelo was such an artist. The pictures which he painted in the Sistine Chapel include "The Creation of Adam," in which the finger of God reaches out and touches the finger of Adam that the spark of life may pass from God to man. There were so many figures that it took the artist four and a half years to do them all. He had to work on a scaffolding. The ceiling is curved like the inside of a barrel, a barrel vault, and the figures had to be made very large in order to be seen from the floor 68 feet below. Often he could not see the entire figure he was working on without climbing down from the scaffolding. St. Peter's Cathedral in Rome, the largest church in the world, was begun under the direction of Michelangelo as architect. He was responsible for its beautiful dome, but died before the building was quite finished.

Leonardo da Vinci, a great artist of the Renaissance, was also an inventor. He drew plans for so many things that it would be impossible to describe them all here. Some of them were gears, made with cog wheels, a cannon that used steam instead of gunpowder, and a flying machine. Leonardo was one of the first artists to use oil paints as a medium. His wall painting "The Last Supper," in Milan, Italy, and his "Mona Lisa," in the Louvre in Paris, are perhaps his best known works.

Renaissance architecture, unlike the Gothic, was somewhat flat and had as one of its important features the use of

horizontal lines. Tall windows gave way to smaller ones set in horizontal lines. Much of the ornamentation, on buildings especially, was added and not a part of the structure itself. During this period each country had its famous artists and craftsmen. We might give a long list of Renaissance artists from such countries as Italy, Spain, France, Germany, and England. Much work was done in gold and silver and other precious metals. Printing, using movable type, was invented about 1440 by John Gutenberg of Germany. This gave rise to a printing industry able to turn out books and other printed products much faster and cheaper than had ever been possible before.

5. *Modern Art*

According to Bonser,[1] "the whole history of art and the most vital element in the pedagogy of the twentieth century, alike teach that all progress in art lies in the expression of the experiences, the hopes, the ideals, and the aspirations of our own environments, of our own times, and of our own lives. The past is studied to refine and stimulate creative effort for the expression of life of the present, not to become a substitute for it."

The skyscraper, although it may have had in the beginning some European buildings as its inspiration, is today genuinely American, as is becoming more and more evident. Today painters, sculptors, craftsmen, architects, and other artist workers are to be found in almost every American community.

Functionalism in architecture has extended beyond the skyscraper to embrace factories, public buildings, including school buildings, and even homes. This movement is

[1] Bonser, F. G., "Some Educational Deductions from the Art of the Great Periods." From an address delivered at the Annual Convention of the National Education Association, 1908.

having an increasing influence over art in industry, where streamlining in vehicles has been quite largely a matter of structural evolution. The designer has finally established himself as an important person in most industries. Such men today design air liners, automobiles, streamline trains, radio cabinets, shoes, and many of the factory products that one may purchase in stores. Our American methods of mass production bring nearly all these products within the means of most people.

6. *Graphic Presentation*

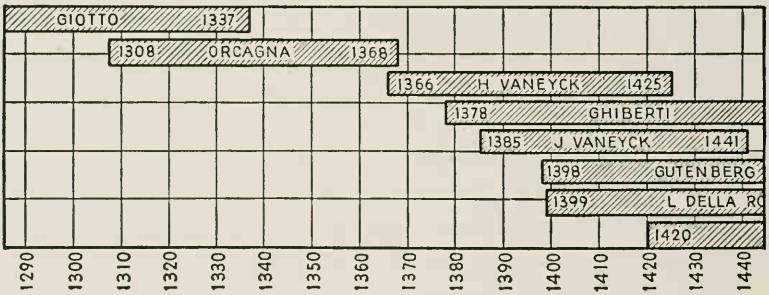
Even though a knowledge of the history of art may not help us to appreciate art aesthetically, nevertheless, it does stimulate our creative effort, and it should help us also to understand art's evolution and its relationship to other forms of human activity. Besides, a knowledge of art history should help us to understand more fully the lives of certain artists in their relationship to the lives of other artists, their predecessors, contemporaries, and successors.

With this idea in mind a class of students at the Maryland Institute, in training to become art teachers, arranged a graphic representation of the life spans of various representative artists whose combined lives extended over a period of approximately six hundred years, from the time of the Italian painter, Giotto, down to the present day. The list of names selected included those of architects, sculptors, and craftsmen as well as of painters.

Because the diagram was made to employ the span as a unit of time measurement, the descriptive term "spanograph" was coined by those engaged in making it, to distinguish this particular kind of graph from other forms of diagrammatic representations. The unit for a spanograph may be also the span of a group of lives, as of an entire school of art, of political parties, of wars, of religious movements, and so on.

A comparative examination of the life spans of the individuals whose names are prominent in history will often reveal facts that at first thought seemed quite inconceivable. Few of us are aware that the birth of Lincoln occurred within ten years after the death of Washington, to take as an example the two foremost names in United States political history. Yet when we compare the life spans of these individuals graphically, the fact is vividly revealed.

So it is with the life spans of other outstanding individuals, including artists. When we come to represent their life spans, we are surprised to find that only three years are required to separate the life span of Gilbert Stuart, most prolific painter of Washington, from that of James McNeill Whistler, America's well-known painter of modern times. On further examination we should find, too, that the life span of Whistler nearly coincides with that of his French contemporary, Paul Cézanne; both these men lived to be exactly fifty-nine years of age, Whistler's birth and death dates preceding those of Cézanne by three years.



Section of spanograph.

The use of the spanograph in organizing and presenting the lives of individuals and of groups in the various fields of human activity is wide and varied. It helps the student to clarify some of the significant time relationships existing between individuals and groups. Obviously its use should

not be confined to mature students but should be extended to include the secondary and even the elementary school levels.

7. *A School Museum*

It has been recommended that a school museum might afford opportunities for many worth-while art activities growing out of a unit dealing with art and time. Procedures suggested for conducting such experiences are indicated in the following description, which is written at the high school pupil's level:

Would it not be interesting and fun to create objects for your own exhibit of "Art and Time," the things to be placed for a certain length of time in a museum of your own, your school museum? In this way you could show your friends the art work created by yourselves, in connection with this study, and demonstrate to them how you have profited by learning about the art of various periods in history. You can use this knowledge of things gone before and create new objects to suit yourselves. Then, through the use of posters, sketches, drawings, and paintings, you can acquaint your friends with the background for the pieces of work created.

Take the most common of materials, clay. Do you remember to what use prehistoric man put this material? The ancient Chaldeans used it too. Do you remember for what? The Greeks made some fine objects of clay, called "figurines." Do you remember the full name for these figures? Today much clay is used in producing many objects used in our homes.

Would it not be fun to make a list of objects to be made out of clay and to mention opposite each its historic background? For instance, if you have tile on your list, what people of long ago used tile? You might also work up a background for the tile in the form of pictures showing the

Chaldeans making tiles and using them on their walls. Why not make such a tile according to your own design and show, in your pictures, where and how the use of tile began? Use for such a tile can be found in the home.

From the list of proposed clay objects you may choose one that you would rather make than any of the others. First make plans in the form of sketches. Remembering that storage space is limited, you will have to be careful not to plan objects that might be too large. If the object chosen is of the bowl type, it should not be over 5 inches in diameter; if a vase type or a statue, not over 6 inches tall. Also plan for the background pictures to accompany the objects displayed.

Clay should be prepared at least a day before it is to be used; a longer time will make it still better to work with. If powdered clay is dry and in lumps, it should be broken up. This powdered clay is then dropped, a small quantity at a time, into a pail or dish about half full of water until it appears well above the water level. Now the hand or a paddle is used to stir the clay until it is thoroughly mixed with water.

If more than one batch of clay is necessary, a large pail or crock should be used and the first batch poured into it. A second batch may now be made and poured in. Mixing small quantities at a time gives best results. After the mixture has stood some time, water may collect on top as the clay settles. This water should be taken off as it collects. If the clay is too soft to use, the amount needed at the time is removed from the large crock and spread out on a flat surface to allow the water to evaporate more quickly. When the consistency of the clay is just right for modeling, you may take a lump of it and work it in your hands. A little practice will tell you when it is just right. If it is too hard or stiff, a little water can be worked into it with the hands.

A small bowl may be squeezed out of a single lump. Larger bowls and vases can be built up by rolling the clay into long cylinders like a rope. These are then coiled and pressed together into the desired shape and the cracks smoothed over with the hands. If a statuette is to be made, the clay is modeled in the hands. Wet hands work best. Few tools are necessary. Some specially prepared sticks and an old knife will come in handy. The sticks may be carved at the ends into any shapes you feel will be most useful. Decorative patterns may be made in the material with the stick or knife, while it is still soft.

When your product is finished, set it away to dry before firing.

Do you remember the meaning of the word "mosaic"? What does it mean and what people used this type of decoration in their art? Mosaics are fun to make. There are ever so many things that can be used in making a mosaic other than bits of flat stone. Some of these materials are paper, buttons, eggshells, oyster and clam shells (broken to shape), and glass. You can easily add to this list if you try.

This type of decoration might be used on a large wall or floor decoration. What other uses can you think of for mosaics? Plan to carry out the problem that interests you most. Mosaics must, of course, be attached to a surface. If the surface is flat, this will be quite easy. On a rounded surface it is more difficult, and is possible only if the particles used are very small. There are a number of substances that can be used to hold a mosaic pattern to its background. Among them are glue, paste, gesso, and a material called "liquid iron."

Some members of the class may want to make a sketch to show mosaics being made or used by the early Christians, who incidentally wore interesting clothes. Some fine work in color, either water color, colored pencils, or crayon, might

come from the making of illustrations showing the early Christians applying mosaic decorations to a wall.

If you would like to do some work in sculpture, you may recall that statues may be made either in the round or in relief. In relief sculpture, the figures do not stand out by themselves but project from a background instead. A relief can be viewed from the front only. You will find this type of sculpture used extensively in the decoration of buildings. Almost all historic peoples, from the Egyptians on, have used relief to some extent. Reliefs are like pictures, with the details raised in the form of sculpture.

Try to think of some place at home or in school where a piece of relief sculpture in the form of a plaque would be appropriate as a decoration. Now you might sketch some ideas that would make a suitable relief for this purpose. Then take some modeling clay and work out a relief according to your sketch. The finished product is to be cast in plaster of Paris.

There are two ways of making the plaster-of-Paris plaque. One way requires a mold; the other way does not. In the method without the mold, a slab of plaster is cast on a flat surface and on this the pattern is carved. A knife or an old wood-carving tool may be used for the carving. In the method which requires a mold, the plaster is poured over the clay model. When the plaster has set, the clay model is dug out. The result is a sunken form called "intaglio." If plaster is poured into this form as a mold, the resulting form is called "cameo." Remember these two forms of relief: sunken, or intaglio, and raised, or cameo.

Depending on which method is used, you will probably need to seek further information to enable you to proceed. The modeling, for instance, must be done carefully so as not to have any undercuts; that is, there must be no places where it might be difficult to remove the cast from the

model. The library should furnish information on the use of plaster of Paris.

You will recall that the monks of the Middle Ages preserved many of the old writings and produced some new ones of their own, and that much of this work was beautifully illustrated with tiny pictures illuminated with elaborate decorative patterns. Some fine examples of manuscripts will be found in the library. Always note the type of pictures and decorations as well as the lettering.

This type of work might prove to be appropriate for one of your museum displays. The manuscripts made should be both legible and beautiful. The monks at work at the monasteries, indoors and out, would make an excellent subject for sketches and pictures. There are many ways of illustrating the monks at work. One good medium is pen and ink. Others are colored pencils, charcoal, crayon, water color, block prints.

When Gothic architecture came into use, less wall space was needed to support the roof of a building, and there was just that much more room for the windows to admit light. Thus began the use of beautiful, large stained-glass windows. You have seen such windows many times, for almost every church has them. Might not your museum be still more attractive and instructive if you were to show how stained-glass windows were made and used by architects and builders of the Gothic cathedrals? Your windows should tell a story just as the cathedral windows do. They should be meaningful, and should form a pleasing pattern in color.

First you will need to know the type of building or room for which the window is to be made, for the shape of the opening is of primary importance. A design for the window, called a "cartoon," should be made before construction of the window is begun. The window pattern might

be drawn on heavy paper and painted in water color, the paper later being oiled to enable the light to come through it to show up the colors, or the design might be made on tracing paper with water color.

Windows with brilliant colors may be made by using sheets of colored celluloid "sandwiched" between two pieces of glass, an extra sheet of thin colorless glass being put over the windowpane. Beautiful mosaic-glass windows may be made from pieces of broken colored glass arranged on a piece of colorless glass to form a pattern, each small piece being set in place with "liquid iron."

Along with the display of stained-glass windows, it would be well to letter a label explaining the changes in architecture and the beginning of the use of large windows. The display itself should show this to some extent but an explanation would make the changes even clearer. Besides, displays in the big art museums are always attractively labeled.

8. *Art through the Ages*

In our consideration of art and time we have included thousands of years of man's life on this earth. In our imaginations we have visited primitive man in his cave home, we have examined the art of the ancient Egyptians, the Assyrians and Chaldeans, the Greeks and the Romans, and we have seen what a tremendous influence the art of these peoples had on the art of the Renaissance and of today. We have watched the Huns and Goths destroy the grandeur that was Rome, and change the ways of living for the people throughout Europe; we have observed the work of the monks who preserved for us some of the best art and writing of the past. We were present also at the rebirth of civilization—the Renaissance. In short, we have, in our imaginations, followed the world's artists from the earliest times down to the present.

9. *Possible Outline of Experience*

General Information: Primitive man; his cave home, wall pictures—Medieval civilization including invasions; Saracens, Goths—Ancient world: Egypt, Assyria, Greece, Rome—Medieval world—"Friar Jerome's Beautiful Book"—Goths and Huns—The Renaissance as a rebirth of civilization—Michelangelo, Leonardo da Vinci.

Technical Information: Painting of prehistoric pictures—Characteristics of ancient, medieval, Renaissance art—Use of clay—Studying relief in sculpture and making it—Mosaics—The making of stained-glass windows—Ancient art: Egyptian, Chaldean, Assyrian, Greek—Greek vases, Roman art.

Directed Activity: List of clay objects and background for each—Looking for examples of Greek architecture and its characteristics—Showing of illuminated pages and books—Telling about Sistine Chapel and showing of pictures—Library research on use of plaster of Paris—Visiting a church to see stained-glass windows—Going to museum to see prehistoric and ancient art.

Creative Activity: Making clay products inspired by earlier examples—Pictures of ancient people in their respective styles—Tile with design inspired by ancient art—Bowl or figure in clay—Making of mosaic: preliminary design—Relief decorations—Drawings of monks at work illuminating manuscripts—Making of window—Exhibiting in school museum.

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Chapter XIII

Art and English

"Every genuine work of art," said Ralph Waldo Emerson, "has as much reason for being as the earth and the sun. The gayest charm of beauty has a root in the constitution of things. The Iliad of Homer, the Songs of David, the odes of Pindar, the tragedies of Aeschylus, the Doric temples, the Gothic cathedrals, the plays of Shakespeare, all and each were made not for sport but in grave earnest, in tears and smiles of suffering and loving men."

Fine examples of prose and poetry, like those of painting and sculpture, are subject to the same laws, or principles, of design. In language, action and repose are expressed in words rather than in materials as in visual art. In literature, there is rhythm and balance in sentences and in paragraphs rather than in lines or colors. If the book you are reading has been well written, you will find that the author of it has not used the same words again and again, that all his sentences are not constructed the same, nor are they of the same length, that some parts of each chapter have been made to seem more important than other parts. In visual art, we must observe similar design principles or

else find later that we have created something uninteresting and commonplace.

1. *Poetry and Prose*

All good poetry is art and it will be found to observe the same rules of design. Some poems are about works of visual art. This passage from Keats's "Ode on a Grecian Urn," for example, describes a beautiful work of Greek art:

> O Attic shape! Fair attitude! with brede
> Of marble men and maidens overwrought,
> With forest branches and the trodden weed;
> Thou, silent form! dost tease us out of thought
> As doth eternity. Cold Pastoral!
> When old age shall this generation waste,
> Thou shalt remain, in midst of other woe
> Than ours, a friend to man, to whom thou say'st,
> "Beauty is truth, truth beauty,"—that is all
> Ye know on earth, and all ye need to know.

The medium of the painter is canvas and pigment; that of the sculptor, stone; the medium of the writer is language, words, and punctuation points. Yet all may be artists if their work is on a high plane of expression and form. In Browning's poem "Youth and Art," it is not difficult to guess what the man described did for a living, when we read

> Your trade was with sticks and clay,
> You thumbed, thrust, patted and polished.

With a careful choice of words Browning has here described a man without using the plain, drab words, "You were a sculptor." Each of us can answer for himself the following question asked by Cary in "An Order for a Picture" when she inquires

> Oh, good painter, tell me true,
> Has your hand the cunning to draw
> Shapes of things that you never saw?

How appropriate these words are when used to ask an artist if he can represent things imagined rather than seen.

It is not difficult to recall other poems read in school perhaps, which show how design enters into literature as well as into visual art. There are certainly no more meaningful words than we shall find in this description taken from Malory's *The Boy's King Arthur:*

> And when the first mass was done there was seen in the church yard, against the high altar, a great stone four-square, like to a marble stone, and in the midst thereof was an anvil of steel, a foot of height, and therein stuck a fair sword naked by the point, and letters of gold were written upon the sword that said thus: *whoso pulleth out this sword of this stone and anvil, is rightwise king born of England.*

In this brief paragraph has not the artist writer painted for us a word picture which could scarcely be described as well in any other medium? The art student might like to try his skill at giving such a description in a picture, at illustrating the passage.

In *The Talisman,* Sir Walter Scott's description of Saladin paints another vivid word picture:

> In his snow white turban, vest and wide Eastern trousers, wearing a sash of scarlet silk, without any other ornament, Saladin might have seemed the plainest dressed man in his own guard. But closer inspection discerned in his turban that inestimatable gem which was called by the poets the Sea of Light; the diamond on which his signet was engraved, and which he wore in a ring, was probably worth all the jewels of the English Crown; and a sapphire which terminated the hilt of his canjiar was not of much inferior value. . . . The Soldan wore a sort of veil attached to his turban, and which partly obscured the view of his noble features. He rode a milk white Arabian which bore him as if conscious and proud of his noble burden.

With such words as these to create an image, it would not be difficult certainly to translate the image into an art

High school students reading at the Enoch Pratt Free Library, Baltimore, appear to have mastered the technique of concentration for enjoyment and inspiration to be derived from books.

medium. The student may well be encouraged to find other passages that have vision expressed in words. Rudyard Kipling's "L'Envoi," for example, is rich in stimulating visual imagery.[1] The poem taken as a whole presents a philosophy of art that is both understood and appreciated by the high school student. Seldom in the art class does he need to be reminded to work for the joy of working.

2. *Illustrators and Their Works*

Among our present-day illustrators, Rockwell Kent is noted for his illustrations in the form of woodcuts. Sometimes people treasure a book merely because of its beautiful illustrations. Remember the Duchess and the Cook, or Alice herself in Carroll's *Alice in Wonderland?* Many times a book, magazine article, or poem is remembered not so much because of its literary content as because of the way in which the text is written. We all have the same image of the characters in *Alice in Wonderland,* however, not because of the written description but rather because of the masterful illustrations in which John Tenniel gives us in another medium an illustrator's skillful interpretation of the author's words. George Cruikshank in a similar way has interpreted for us the characters created by Dickens.

Illustrators do not work on paper or canvas only. In some of our public buildings artists have found a need for illustration on a large scale on wall spaces. These flat surfaces seemed cold and dead until they were covered with decorative pictures. Such pictures are called "mural paintings" or just "murals." Sometimes they tell a story just as a book opened to an illustration might tell it. Edwin A. Abbey has told the story of *The Quest of the Holy*

[1] The Works of Rudyard Kipling, Vol. XI, verses, Charles Scribner's Sons, New York, 1909.

Grail in his wall paintings in the Boston Public Library. John White Alexander has shown in a series of mural paintings in the Library of Congress in Washington the evolution of books from the early stone records to our present-day printed books.

These paintings are illustrations primarily. Others are decorations primarily and illustrations incidentally. The works of the Mexican artists, José Orozco and Diego Rivera, are of this category, as are those of the Americans, Thomas Benton and Henry Varnum Poor.

Illustrations do not have to be made on a flat surface; they may be done in the form of relief sculpture, as in the Bible pictures by the sculptor, Brunelleschi, appearing on the doors of the Baptistery of the Cathedral of Florence, or in the form of sculpture in the round, as exemplified in the genre groups of the early American sculptor, John Rogers.

3. *Art-English Activities*

The activities carried on in connection with this unit may well include the making of illustrations for school publications of various kinds in the form of drawn and painted pictures and of modeling, which may subsequently be photographed and the photographs reproduced. The latter sometimes make suitable chapter and page headings for the school annual to introduce certain sections: Classes, Organizations, Faculty, Activities, Features. In the school annual, there are some sections more important than others. There are pages with more action than others. In the best books and periodicals, everything has been carefully planned in advance. All the best magazines have art editors who see that their publications exemplify good taste even in the advertising.

Stories are told in other ways than through the use of words and illustrations. How uninteresting would be our

plays and motion pictures were there no scenery to support the characters. Although the earliest plays had no scenery or special costumes, it would be difficult for us to imagine and live again the story Shakespeare wanted us to get when he wrote *A Midsummer Night's Dream* if the characters were dressed as we dress today and if they did not have a background of supporting scenery. In spite of some opinions to the contrary, most of us still prefer to see plays enacted in "their proper setting." Nor do we enjoy a play in which the people, all dressed alike, do not seem to accomplish anything. We also dislike a play where the characters talk about one thing and then shift abruptly to an entirely different theme, thus destroying both rhythm and balance. Nor would we like it if all the actors in the play were of equal importance, if there were no minor characters to support the major ones.

Another way of telling a story that has been used since ancient times is the familiar puppet show. In the Middle Ages, the people at Christmastime gave plays that told the Christmas story. Sometimes they used puppets. Puppets are made to fit on the hand. Most of the people at that time were unable to read and they greatly enjoyed the stories the puppets told. These early presentations may seem crude to us, but they followed the same rules we still follow in giving such performances.

4. *Library*

Just as the art interests in a school may be said to center in the art room or the school museum, so may the English interests be said to center in the English room or the school library. The following approach to activities involving the library should be found helpful by the art teacher who is desirous of stimulating the carrying on of this type of activity:

Are there any changes you could suggest to make the library a more pleasant place in which to work? Here again we can use our knowledge in arranging or planning a library that any school might be proud to own. You will find that it is easier and nicer to read or study in a pleasant environment, where good taste has been realized in the arrangement of furnishings and pleasing color in the decoration, with some parts of the room made more interesting and important than others.

You may now care to make a plan for an ideal library or to improve the library in your school. If you wish to improve the present school library, you will need to measure the room to get the length, width, height, and the position of the doors and windows. These are the only dimensions you will need to use. You probably would find it impossible to work on a piece of paper actual room size, so the size will have to be reduced. If you choose ¼ or ½ inch on your paper to equal 1 foot in the actual size of the room, you can easily get this plan on paper. Using the scale decided on, you may first draw the floor *plan* and then the *elevation* of one wall at a time. Using the same scale, draw in their best positions the table, chairs, and other furnishings. On the side and end walls you may show the furniture that would be seen against them. This furniture will have to be shown also on the floor plan. In drawing the floor plan, represent the furniture as seen from directly above; in drawing the elevations, show the furniture as if you were looking directly at it.

Drawings should be finished with a wash of transparent water-color paint. Don't you think the other pupils who use the library would like to see these? If they are displayed in the library, perhaps others who use the room might be interested in seeing how an attractive library should look, or in seeing how near your library comes to the ideal standards that you have set up.

5. *Beautiful Books*

Examine this book you are reading and notice how it is put together. Many of the books that are most interesting have illustrations to make the ideas expressed in them more vivid, interesting, and attractive. Some books, however, depend for their beauty entirely on their type and its arrangement.

In the first part of this chapter reference was made to art in poetry and prose. See if you can find other fine examples in the library. Write down the reference so that later you may be able to read your selection to the class. In order to give other boys and girls an opportunity to read the selections you have chosen, would it not be useful to make a book of some of them? If you decide to make a large book, several pupils might work together. If you wish to make a small book, you may work by yourself. If the class prefers, the book may be made to contain only original material, poetry or prose or both.

Here are some of the things you would need in order to make a standard-size book. Choose the size paper that will be most convenient for your purpose and the number of pages. Remember to leave several pages for illustrations. You will need two pieces of tape to hold the sections together, a heavy Manila paper strip about ¼ inch wide and the length of the book, bookbinder's linen about 3 inches wide and 1½ inches longer than the book, two boards or heavy cardboard ⅛ inch shorter than the width of the book and to project ⅛ inch beyond the edges of the pages on three sides, two pieces of Manila paper the size of a page, two pieces of cloth or colored paper 1½ inches longer than the boards and ¾ inch wider, two pieces of thin colored paper the size of two pages; these will be the end sheets of the book. You will also need a needle with a large eye, strong linen thread, and glue. Now you have all the

materials that a bookbinder uses in making a hand-sewn book. See if you can find out for yourself how the book is to be put together. Use your head, and try to get the information needed from the school library or at the public library.

Since books generally have something on the cover to attract the eye, on another piece of paper plan a decoration or a title for your book. This design should be transferred to the front cover where you think it would be most appropriate. You should now be ready to put the references you found inside the book. Will you letter them freehand or write them? Decide which will be most satisfactory and put the selections in the book. Be sure to leave blank the pages that you are going to illustrate.[1] Before you illustrate the book, look through magazines, newspapers, and other publications to note the various mediums illustrators use. You will find that some illustrators use black and white, while others use color. Decide which medium will be most practical for your own use.

The following suggestions should help you to arrange a well-lettered page:

1. Devote a little time to making a rough pencil sketch of the arrangement before starting to letter.
2. Let legibility be the primary consideration.
3. The style of letter should reflect the spirit of the subject discussed.
4. The text should be so arranged as to form part of the whole design.
5. If illustrations are used, they should generally face the lettering which refers to them; otherwise they detract attention from the text.

[1] The lettering or writing may be done before the pages are bound if this method is preferred. The illustrations may be inserted by mounting or by pasting them in or by drawing them on the blank pages, as preferred.

6. With rare exceptions, the best lettering loses its effectiveness if indifferently spaced.

7. The aim should be for general effect as well as perfection of detail.

Plan your illustrations on lightweight paper. Be sure you know thoroughly the passage you are illustrating before you plan your picture or you will not express in it what the text expresses in words. Do you know Carl Sandburg's poem entitled "Fog"? It would be fun to make an illustration for that.

Other poems that give a vivid picture are "Afternoon on a Hill," by Edna St. Vincent Millay; "The Vagabonds," by John T. Trowbridge; "Smoke," by Henry D. Thoreau; "The Snowing of the Pines," by Thomas W. Higginson; "To a Sea-bird," by Bret Harte; "The Blades of Grass," by Stephen Crane; "Frost on a Window," by Grace H. Conkling; "The Railway Train," by Emily Dickinson; "Seascapes," by Madison Cawein; "Street Lamps," by Harry Kemp; and "Wind and Silver" by Amy Lowell. Why would exciting important events be better for illustration than mere portraits of the people mentioned in the story?

When finished, your book can be placed in the school library for others to examine and read. Is your book the only one in the library primarily concerned with art? What other art books or art magazines have you found there which you think outstanding?

One school reserved a section of the shelves in the library entirely for art reference books. Here all the books that contained information about art were put aside for the use of the boys and girls in the art classes. Some of these books were shabby and ugly, but the pupils thought of a way to restore them to attractiveness and beauty. They decided to make colorful jackets to cover the soiled, worn-

out covers. They chose colored papers, cut them to fit the books exactly, and designed and lettered their titles attractively. Everyone who came to the library was attracted by these bright-colored books which before had been dust-covered and neglected. The librarian became so interested that she asked if the class would cover some additional dingy-looking books. From that time on the library was a much more colorful place. You might like during your spare time to make a nice jacket for one of your own textbooks.

6. *Announcing New Books*

In large libraries, new books are often announced or advertised by means of posters. This stimulates interest in reading the books. In your school you could do the same thing for the new books or even for the old ones which are of some special interest at certain times. At Christmastime a poster referring to Dickens's *Christmas Carol* and other stories might be displayed. Thus pupils will have their attention drawn to books that might otherwise go unnoticed.

The school library can be the most attractive and interesting room in the entire building; it can be made so by the boys and girls in the art classes. See what you can do to bring this about, and watch for the increase in library attendance. When you hear the other boys and girls talking about the beautiful book jackets, library plans, and posters, you will know that you have contributed something to the welfare of the school.

Whatever project is undertaken, try to make it just as fine as possible, something of which to be proud, so that, if it could speak, it might reply in the words of William Chandler Smith:

I am only a piece of work
After I leave your hands you may never see me again.

People looking at me, however, will see you and, so far as they are concerned, I'll be you.
Put into me your best so that I may speak to all who see me and tell them of the master workman who wrought me.
Say to them through me, "I know what good work is."
If I am well done, I will get into good company and keep up the standard.
If I am shabby and poorly made, I will get into bad company.
Then show through me your joy in what you do, so that I may go the way of all good work, announcing wherever I go, that I stand for "a workman that needeth not to be ashamed."

Remember, please, not to think of art and English as far apart but as two school subjects which help each other and conform to the same principles of design. Never forget that art is present in poetry and prose as well as in the illustrations found in books. Art and English must work together toward a finer, fuller school life.

7. *Possible Outline of Experiences*

General Information: Poetry and prose based on design—Mediums: painter, pigment; sculptor, stone; writer, words—Illustrators: Rockwell Kent, John Tenniel, George Cruikshank—Enrichment of literature by illustrations—Murals: Orozco, Rivera, Benton, Poor—Storytelling through puppet shows—Artistic planning for the school paper—Creating interest in new books by posters.

Technical Information: Room plan, elevation; dimensions, scale—Manuscript writing—Illustrations and how made—The making of a book: size, materials, decorated cover.

Directed Activity: Poems or prose having reference to art—Visiting English section of school library to note attractively decorated interior—Visiting public library to view display windows—Examining school textbooks; discussing merit of illustrations.

Creative Activity: Planning to redecorate school library or English room—Making book, including selections and illustra-

tions—Library posters to create interest in books or in "Better English"—Designing display window to stimulate interest in reading.

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Chapter XIV

Art and the Home

In order to meet the requirements of good architecture, a house must be so planned and constructed as to fulfill the requirements of both use and beauty. If use is properly provided for, beauty will generally take care of itself. A house must provide shelter and protection for all members of the household, a purpose which determines the size of the building and the number, size, and arrangement of its rooms, the kinds of materials used, and the processes to be employed in its construction. To meet our aesthetic needs, a house that is also a home must not only be adequate, it must appear so. Houses take on a new meaning once their art significance is understood. This is one reason why architecture is included in the course of study in art.

Even prehistoric man decorated the interior walls of his cave with drawings. Today this urge to adorn our homes is as strong as ever. Interior decoration is to be realized most adequately through the exercise of good taste in the selection, use, and care of everything that goes into a home, including the floors, the walls, the woodwork, and the ceiling, furniture and furnishings—such things as wall

decorations, hangings, lighting fixtures, and carpets. How shall the walls be finished? What should be done with the floors? What furniture should be selected and how should it be arranged? What pictures should be hung on the walls?

How did our present home develop? What makes a home attractive to a passer-by? What points should be considered before building a house? What constitutes a good plan for a house? What shall we consider first in starting to decorate the interior? How shall we do our walls? How shall we care for our floors? How shall we select our furniture? How shall we arrange our furniture? How shall we select linens, silver, china, and glass for the home? How shall we use these in setting our table artistically? Answers to these and similar questions relating to order and beauty within the home are provided in the art classes.

1. *Early American Homes*

The first English people to migrate to America built huts like the homes of the charcoal burners which they had seen in the woods in England, branches and twigs woven together. The roof was made of straw. It was steep and pointed at the top, which made it look something like the wigwams of the American Indians. The early settlers in America did not know how to build log cabins until people from Sweden came here. They had lived in log cabins in the old country, so when they came to America and found trees in abundance they were able to build the same kind here. Soon after the arrival of the Swedes, almost everyone in the new country began building log cabins.

Have you ever noticed the type of old-fashioned house sometimes represented on Christmas cards, the kind that has the second story projecting beyond the first floor? These houses have some of the characteristics that we call

"Gothic"; they were built of wood and had windows opening at the side on hinges. Each window had many small panes of glass. The Betsy Ross house in Philadelphia, where the first United States flag was made, and the Paul Revere house in Boston are examples.

As the colonists became more settled and had some leisure, they built better and better homes. King George III was reigning at the time, so they called this type of architecture "Georgian." A good example is Homewood in Baltimore. Homewood, which is a typical five-part Maryland house, was built by Charles Carroll of Carrollton, signer of the Declaration of Independence, for his son Charles Carroll. Georgian colonial houses were made of wood in the North and of brick in the South. In Pennsylvania they were built of stone. The Carroll house, located on what is now the campus of the Johns Hopkins University, suggested the style of architecture which has been consistently carried out in the erecting of new buildings at the university.

Another type of architecture of the period of the Carroll mansion is the "Dutch colonial." Houses of this style were built by the Dutch settlers in New Amsterdam, now New York City. The roofs of these houses sometimes sloped down beyond the front of the house to cover the porch.

Thomas Jefferson made architecture his avocation and designed many buildings, including those of the University of Virginia. He also designed his own home, Monticello. These buildings were all erected after the Revolution. They are made of red brick and have white columns. The country was no longer one of Great Britain's colonies, so we call this architecture "Early Republican."

A different type was developing in the southwestern part of the United States. The people who settled in Mexico were Spaniards. The type of house they built there we call

(Photograph by Harry Leopold, Baltimore, Md.)

Homewood, typical Maryland house, built about 1800 by Charles Carroll of Carrolton, signer of the Declaration of Independence, is representative of the best in American domestic architecture of the Early Republican period.

"Spanish Colonial." During the American Revolution, some Spanish monks moved from Mexico into California. Here they built churches and other buildings called "missions," which were much like the monasteries of the Middle Ages in Europe. The Indians were the only people they could find to help them build these settlements, so the architecture was generally rather plain. The mission buildings were erected around a courtyard. Sun-dried brick was the material used in their construction. The houses of the Indians of the Southwest also were built of this material and they looked somewhat like our modern apartment houses, with rooms for many families. They were not much like modern apartment houses inside, however. There were ladders outside instead of stairs inside to get from one floor to another. These houses had flat roofs, and the ends of the roof logs stuck out at the top of the walls. The Spanish colonists adapted this style of architecture to their needs. Since the French settled in New Orleans, it is here that we find tall French windows and iron balconies. This type of American architecture is called "French Colonial."

2. *Modern Homes*

The present-day home is not used for social life so much as was the home of a generation ago, because we of today have more public and semipublic buildings that take care of our social life. It is for this reason, and some others, that the modern home has become smaller and more compact.

Some of the new homes are entirely different from any of their predecessors. Frank Lloyd Wright, a contemporary American architect, has designed many houses "in the modern manner." He was, indeed, one of the first architects to design them. Although some foreign countries now use this modern, or functional, style of home more than we in the United States, the idea of it was first worked

out by Wright here in America. The functional house is one that meets needs in the most direct ways possible. It generally has a flat roof, much window space, and no cellar. It fits the landscape and the family for which it was designed. Do the modern homes that you have seen look out of place? Perhaps if there were more of these houses grouped together, or more land around them to set them off, there would be more architectural harmony in some neighborhoods where modern houses have been built in recent years next to or near conservative ones.

3. *Landscape and Interior Architecture*

A home that has flowers, trees, and shrubs growing around it seems to be more cheerful and inviting than one without them. Setting out trees, shrubs, and other plants around a building is called "landscaping." Is your home beautiful because of the things around it? If not, shrubs and vines may be used to create a pleasing pattern against the house but not to cover it like a blanket. Would not some homes that you have seen be more attractive if they had been landscaped? How would you go about making the necessary improvements in a house that has not been landscaped?

Our desire to make our homes more beautiful inside and out through decoration is as old as the human race. We found that prehistoric man decorated the interior of his cave with drawings of animals. Today this desire to adorn our homes with pictures, furniture, rugs, silver, china, glass, and other furnishings is probably just as strong as it ever was. Many types of furniture have been used in homes. Our present problem is to study furniture and decide on what kinds are best for certain purposes. Some people like *modern* furniture when they see it in a store where it has a background built especially for it. That same furniture in a home may look quite out of place.

The appropriateness of furniture in a room depends on its surroundings, especially on the background, which includes the floor, the walls, the woodwork, the doors, and the ceiling. This background, to a large extent, must be made to harmonize with the type of furniture used unless the furniture has been selected to harmonize with it. Modern or contemporary furnishings demand a different background from that required for elaborate, traditional, or homemade furniture.

In a small home, walls, ceilings, and floors should be planned so as to be noticed but slightly, if at all. Ceilings should usually be lighter in color value than the walls, walls lighter than floors. Modern decorators, however, sometimes use dark colors for ceilings, just to be different perhaps. This seems to make the ceilings appear lower and to give the room a more intimate feeling, a treatment that is sometimes quite effective.

Plaster is the commonest wall finish. It can be left in a natural color, painted, or papered. Unsmoothed plaster showing the natural trowel marks is desirable for some types of homes. Smooth plaster and wallpaper are generally better as a background for fine furniture. In coloring the walls, warm hues such as red, orange, and brown tend to hold the other colors together and they help to make old furniture look its best. Cool colors, such as blue, green, and purple, seem to separate the other colors in a room and to make them look less friendly toward each other.

Wallpaper is useful in wall covering. Its patterns can often improve poor proportions. Much of the patterned wallpaper is poor in design and color. Often papers that appear pretty and colorful in the sample books do not look well on the walls, whereas the ones that seem more simple and uninteresting in the sample books may look much better in use. A safe way to select paper is to pin up several different rolls to the wall and compare them. It has been

truthfully said that wallpaper does much to furnish a room. A room with scenic paper may appear to be so completely furnished that it needs no furniture. For this reason it is best to use such paper sparingly or not at all.

Some architects do not like the narrow-boarded, hardwood floors. They prefer wide boards, particularly for simple houses. Which do you like? Wooden floors should generally be stained with a dark stain, since the floor should be the darkest part of the room. Do you think painted floors desirable? Why? What other materials have you seen used for floor coverings? Do you think linoleum appropriate? Why?

The best-looking floor background is a carpet or rug of a solid color, although it is less practical because it shows soil and wear more than a figured surface does. Carpet extending to the wall makes a room appear larger. Such carpet is sometimes used to cover floors that are in poor condition or otherwise not presentable. Like patterned wallpaper, patterned rugs or carpets must be regarded as decorations. It is necessary to use small patterns with small furniture in small rooms, and it is advisable to use them also in large rooms if one wishes to have the rooms appear smaller. Plain rugs make rooms seem larger than do rugs with patterns or borders. Since the floor is such a large area, it is not desirable to have strong or brilliant colors there. The color in floor coverings should be subdued; the texture should be suitable also. Simple furniture suggests a simple floor covering.

Curtains can be used both as background and as decoration. When curtains are used as a background, they are usually of the same hue as the walls. It is wise to have them serve as a background only if you feel that the patterns in the rug and in the wallpaper are enough. Also, if there seem to be too many windows in a room, it is advisable to have the curtains serve as a background. Decorative

curtains may be used to give a feeling of gaiety if the room seems to be too dull in color. Such curtains are often best if pictures are not to be used on the walls. It is not necessary to have window shades drawn halfway just to give a better outside appearance. Shades should be raised or lowered to adjust the natural lighting and to make the room more comfortable and livable.

Sufficient light from a lamp is necessary for reading and working. Several floor and table lamps distributed throughout a room will give the mellow light that is desired in a home, and they may be so arranged as to light up effectively the parts of the room that most need the light. Ceiling lights are unsatisfactory for reading. Indirect lighting is preferable when uniform lighting is needed. Can you tell why it is more expensive? Wall lights are generally unsatisfactory.

Most people hang too many pictures on the walls. Three pictures properly placed are usually enough for most living rooms of ordinary size. Do you think it would be a good idea to change these pictures occasionally? Pictures must be hung low enough so they seem to fit in with the furniture, and they should be hung as flat as possible against the wall so that they may seem to be a part of the wall itself. It is best not to have the wire show. Pictures are usually hung at the eye level of the person of average height. In modern rooms, they are sometimes hung on the eye level of a seated person. This brings them into closer harmony with the low furniture. What do pictures add to the livableness of a home?

Do you like to see bowls of flowers in a room? You probably do if they are well arranged in suitable containers. Rooms that have a great deal of color need less flowers than rooms lacking in color. A room with dark colors is made more livable by using bowls or vases of light-colored flowers. Plain-colored bowls and vases of graceful form and bowls

of crystal are sometimes good to use in decoration. Large jars and vases can be placed on the floor.

4. *Designing a Home*

After learning about the different styles of architecture that have been used in America, would you not like to design a modern home which should be better adapted to present needs? Architects of today plan new homes with this aim in mind. Some of them still begin with one of the old styles that seems to them to be especially good looking. This helps them to form an idea out of which a new design may grow. Others endeavor to create an entirely new type.

The following suggestions addressed to the high school student are intended to help the teacher in conducting the activities involved:

Before you begin to plan a home, collect pictures from newspapers and magazines showing different types of architecture. These pictures will help you form your own design. Visit some model homes too, if possible, and see how they are arranged.

Let us consider in detail the floor plans of the house. It is necessary to have the rooms well planned. The purpose of each room should be considered. A house should be as compact as possible so that no space is wasted. The reason so many houses are of two stories is that they are cheaper to build this way. The room and foundation costs will be less than for a house that is spread out on a single floor. A garage under the same roof as the house saves yard space and construction costs, but it requires more careful planning.

Windows should be so planned as to give plenty of daylight and air. Cross-ventilation is especially desirable in kitchens and bedrooms. There should be ample closet and cupboard space. The arrangement of the doors

should be carefully considered; too many window and door openings in a room interfere with the placing of furniture.

To make an accurate architectural, or working, drawing of a house requires mechanical drawing instruments. These are the T-square, the 45-degree triangle, the 30- and 60-degree triangle, and the architect's scale. The reason for making these drawings accurately is that a builder should be able to follow the plans, using the architect's scale to determine all measurements not given as dimensions on the drawing. The T-square is used to make all the horizontal lines; the triangles, to make the vertical and oblique lines. The architect's scale is used for measuring distances. If you do not have mechanical drawing instruments, sketch your plans freehand indicating all dimensions carefully. The floor plans of the house are drawn first. From these plans the elevation drawings can be easily developed.

When you have finished your plans, you may, if you like, show the house you have designed as it would appear in the landscape, in perspective. This drawing should give a clearer idea of what the house will actually be like when built. In drawing a house in perspective, it is most effective to have two sides of it showing in the picture.

After designing a house and making the drawings, it would be fun actually to build a model of it to scale. You could probably find wood, cardboard, and other materials that you think might be useful in building the model, which should include landscaping. You would need nails, a hammer, and a saw if you use wood. It should not be difficult to decide what materials would be needed. Make a list of them. You can make trees and shrubs for your model from sponge, papier-mâché, modeling clay, cork, Celotex, and various other materials. You and your classmates can be architect, contractor and builder, painter, interior architect, and landscape architect.

What kind of garden will you want around your house? Some people plant flowers just to enjoy them. Flowers and shrubs should be planted for this purpose, but also to make the house itself more beautiful. The type of landscaping will depend upon the style of house and the space available around it. A simple cottage should have a simple garden. The entire house and lot should now be thought of as a picture. Are there a garage and a driveway to be beautified? Perhaps a vegetable garden should be included. Remember that an inviting door and approach are of importance. You may want to enclose the entire property with a frame of hedges, shrubs, and trees. Trees are necessary to give the place a proper setting. Small trees make a dooryard appear larger than it actually is. In a small garden it is best to have just a few colors of flowers. Flower beds should be planted near enough to the house that they can be enjoyed by the people living there. Observe gardens in your neighborhood and see if they are well planned and add to the beauty of the place. Also collect pictures from magazines and books.

5. *Decorating the Home*

The arrangement of the furniture in the rooms can now be added to your floor plan, or you may make a separate plan for each room. Do you not think this might help us to rearrange the furniture better in our own homes? Before planning the arrangement of the furniture, it is recommended that you make up a scrapbook of different styles. Visit furniture stores and observe the styles of furniture offered for sale there. The stores sometimes have furnished rooms arranged to help you with your problem. The type of house you have designed should determine in general the style of furnishings needed. It would give you a complete picture if these samples were kept with, or mounted on, the same piece of paper as the floor plan.

6. *Efficiency and Beauty*

People have constantly been trying to build more beautiful homes. The American colonists early turned their thoughts to improving the convenience and appearance of their homes. They planted shrubs and flowers around their buildings to make them more attractive. They gave great care to the interiors. As soon as people have leisure, they turn their attention to improving and beautifying their homes. Our ways of living have changed a great deal since colonial times, but our need for art in the home has increased as living conditions have become more and more complex. There is a greater need for art in the home now than ever before. Art in the home makes for more efficient and more beautiful living.

7. *Possible Outline of Experiences*

General Information: Early American homes—Modern homes—Landscape architecture—Interior architecture—History of furnishings and furniture: wallpaper, glass, pottery, textiles—History of American architecture: influence of geography over art; influence of foreign countries—Information and illustrations of unusual houses designed by Frank Lloyd Wright.

Technical Information: Materials used to build homes: prehistoric, tropical, American Indian; furnishings; decorations; utensils; relation of beauty and utility—Types of architecture in America: log cabin, "Gothic," Georgian, Dutch Colonial, Early Republican, Spanish Colonial, French Colonial—Materials in modern homes: glass, brick, stone, concrete, wood, plaster, brick, steel—Kinds of trees, shrubs, and flowers suitable for landscaping a home—Woods, metals, plastics, used in furniture.

Directed Activity: Student collection and exhibition of pictures or reproductions of pottery, textiles, and crafts of primitive man—Visiting museum exhibits—Displaying outstanding historical and present-day examples of architectural types of homes—

Visiting a lumbermill and stone quarry—Making a tour of nearby gardens and of nursery and horticultural establishments.

Creative Activity: Plans for simple home—Model of home—Cardboard model of historic home, one room in miniature—Watercolor sketch of tree, flower, or garden—Perspective rendering of original house in original setting.

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Part IV

ECONOMIC EFFICIENCY

How Art Is Used to Make a Living

Chapter XV

Art and Occupations

1. *Art in Occupations*

Many people have found ways in which to make art pay dividends. It is possible for some to earn a living through art. Although artists are inclined to look with disfavor on money and are often thought to be poor businessmen, art education may be said to have a high cash value for those who take advantage of it. Let us consider briefly the need for art in industry. Nowadays the loveliest things are found on sale. Even the useful garden hose is now put out in beautiful greens and tans. Much effort is being put forth to make every useful article beautiful in form.

Today there are designers of clothes for both men and women, there are stage designers, designers of objects used in the home such as furniture, silverware, and rugs, and of many other things too numerous to mention. Another group of artists is called in to sell these lovely things. They are the advertising designers who display the objects in many clever and artistic ways and create a demand for them through advertising. Then, too, our surroundings

must be made beautiful; so architects and landscape architects make their contribution, as do the sculptors and painters. These various fields of art are included in the school program to give an opportunity to acquaint all boys and girls with each occupational art field and to make it easier for some students inclined that way to become designers and art workers for commerce or industry.

All productive work that is well done may be art. Every industrial occupation uses art to plan, carry out, and judge its products. The artist is not to be thought of as a person apart by himself, but rather as one who has a practical connection with most of the occupations of the world in which men make a living. If art is for all the children of all the people, then guidance in it is their rightful heritage. As a vocational field, art offers unusual inducements to the boy or girl who has marked ability, for the world has constant need for artists, art workers, and art teachers.

2. *Special Art Occupations*

"To get good designers we must take the proper means for educating them and if we should make drawing a branch of common school education, we should have an opportunity of selecting those who evidence superior talent for the art and at the same time, by improving the taste of all, we should create in many an appreciation of the beautiful and consequently very much extend the consumption of art productions." Thus, in the year 1848, wrote William Minifie, first teacher of art in the Baltimore public schools.

As long ago as the fifth century before Christ, Plato said, "No two persons are born alike, but each differs from the other in individual endowments, one being suited for one thing and another for another, and all things will be provided in superior quality and quantity and with greatest ease, when each man works at a single occupation in accordance with his natural gifts." Just what are some

of the demands and the opportunities afforded by the art occupations in which 175,000 workers are engaged in the United States of America today?

3. *Painting, or Graphic Art*

Visual art can be divided roughly into five large fields: painting, sculpture, architecture, industrial art, and commercial art. Painting is expression through the use of color, a form of expression with which we are all familiar. The materials which the painter may use are many. Oil painting is generally done on canvas and on wood, the pigments having been ground in oil and thinned with turpentine. In water-color painting, the pigment is mixed with gum and glycerin and diluted with water. Water-color painting is generally done on paper. Fresco painting is done on fresh plaster, the pigment being mixed with water and powdered lime and applied to the new plaster while it is still wet. Tempera, or distemper, painting is done with colors mixed with egg or glue and water. Fresco was the method used by the early Italian painters in decorating the walls and ceilings of churches; they used tempera in their smaller pictures, generally painted on wood. These mediums were satisfactory in the warm climate of Italy, but when artists of countries farther north used them they found that cold and dampness sometimes caused the colors to crack and peel. These northern artists discovered that by mixing their colors with oil they could show higher lights and deeper shadows in their pictures.

The painter's art may be in the field of portraiture, landscape, still life, figure, animal, or genre subjects or in a combination of more than one of these fields. This will depend upon his personal preference and his ability. If he likes color especially, either landscape or still life may be his favorite field; if form attracts him most, he may paint the human figure or animals. His work may be done for a

mural showing an event, progress, ideals, or enterprises, as we have recently seen exemplified in post offices and school buildings. The artist usually makes one or more preliminary sketches, sometimes just thumbnail sketches. He may choose a part from one sketch and a part from another for his final painting. His sketches may be either from memory or from nature. Often he employs a model to pose for him. His painting may sell for a price of from a few dollars up to several hundred or thousand dollars, depending on his popularity as an artist.

It is suggested that a painter be invited to visit the school and that permission be secured if possible for the class to visit his studio and observe him at work.

4. *Sculpture, or Glyptic Art*

The sculptor does approximately what the painter does but in a different medium, that is, he uses different materials and tools. Instead of brush, paint, and canvas, the sculptor models in clay, casts in plaster, and carves wood, stone, and other materials. Unlike the painter, he works in three spatial dimensions. To be able to practice sculpture successfully, an individual must possess artistic ability, imagination, and vision. Sculpture is not only an important art in itself, but it is used in connection with many other occupations where three-dimensional considerations are involved. For example, sculptors are employed in the design departments of automobile factories. It is desirable for members of the class to visit a sculptor's studio if this can be arranged and to discuss with him the professional qualifications needed, the problems involved, the advantages and disadvantages of his occupation.

5. *Architecture, or the Art of Building*

The architect is a creator of buildings that are artistic and at the same time made to meet the needs of the people

(Photograph by Metropolitan Photo Service, New York.)

The profession of architecture embraces art, engineering, and business. Robert Burbank and J. Ross Gillie design commercial and industrial buildings as well as houses.

who will occupy them. Whether it be a fine home, a school, a church, a bank, a government building, or an ocean liner, an architect is responsible for its design. If it were not for architects we should still be living in crude huts instead of comfortable homes.

The same sort of qualities and fundamental training are necessary for the general architect, the landscape architect, and the naval architect. The general architect designs buildings of all sorts. The landscape architect cooperates with the architect in the work of planning the grading and planting of the grounds around buildings; he harmonizes the architectural and natural features so as to produce a pleasing and beautiful effect. He may even lay out an entire residential district or a town. The naval architect designs and supervises the construction of floating buildings, or boats.

The profession of architecture often embraces a knowledge of art, engineering, and business. Anyone entering this occupation should have considerable artistic ability and skill and, above all, imagination. His training should include mathematics, a broad college or art school course in architecture, as much travel as possible, and finally apprenticeship in the office of a practicing architect. Information as to the schools and cost of courses may be secured from the local branch of the American Institute of Architects in all large cities of the United States. For indoor and outdoor activity, there is a wide range in architecture for men and women. The architect can have a worthwhile effect upon a community in improving its housing conditions.

The architect may be invited to discuss his occupation. He will probably show some blueprints, which are his plans for buildings. He may be willing to tell the class about some of the problems he has had to solve and to answer questions about opportunities and training.

6. *Commercial, or Business, Art*

Commercial art is the art made use of in business. It refers to the drawing or reproduction of any design or illustration that is to sell something. Commercial art includes the arranging of displays in stores and elsewhere. Commercial illustrating includes drawing in pen and ink, and crayon; black-and-white, wash, and color drawings. Some advertising illustrators specialize in one type of subject, such as figures, machinery, clothing, or animals; others, in lettering. Sign painting is included here.

The large advertising agencies have artists to compose rough layouts to plan for illustrations, posters, lettering, typography, and borders. The commercial artist must have a good imagination, a sense of fitness, and a working knowledge of design and composition. The advertising designer must know many alphabets and be able to apply the right lettering to any subject. To advertise silks, he should be able to use a fine, light, and graceful type of lettering; to advertise trucks, a heavy, bold lettering. He must be able to make his lettering legible and at the same time attractive to the eye. Poster designs are done for billboards, magazine covers, and boxes, cartons, and containers of merchandise. In postermaking, the artist combines illustration and lettering, usually carrying the illustration out in silhouette.

It is interesting to note in this connection that ten magazine publishers in our country spend from two to three million dollars annually for their advertising illustrations. One good commercial illustration alone may bring its artist $2,500 or more. There is at present a great demand for good commercial artists who are experienced in certain types of work. Drawing for newspapers is also a profitable field. The cartoonist or caricaturist must have a general idea of draftsmanship, an abundance of original ideas, and

the skill to present them in suitable form. He must be a fast worker, as today's news will be out of date by tomorrow. The successful newspaper artist may make from $2,500 to $7,000 or even more yearly. An art school course beyond high school is recommended for preparation in this field. In addition, a year or more working with a recognized newspaper artist and as much travel and reading as possible are desirable. Unless a student is especially gifted, he should not attempt to become a commercial artist. There is no doubt that commercial art products can be just as good in quality as any other kind of art.

7. *Industrial, or Manufacturing, Art*

Industrial art is the art made use of in manufacture in which raw materials are transformed into artistic products of utility. Industrial art includes textiles, costumes, jewelry, furniture, ceramics, and printing. The fields of textiles and costumes will be discussed briefly in this section. The student should be encouraged to make a more extended study of the particular field which interests him most.

Art in textiles includes the work of the designer of patterns, the designer for the Jacquard loom, the designer of prints, the color expert, and the technician who adapts Jacquard design to squared paper and cut cards for the loom. The textile factory is the market for such work. The stylist determines the general character of design for the season's output. In the factory, the print design passes from its creator to the technicians who use it to form a repeat and to work out the color combinations. In the engraving studio, the design is engraved on a zinc plate, then on a copper roller from which the material is printed.

In the field of costume design, the young stylist must start humbly at a small wage. He should have a broad general education and specialized training in design, as

well as an understanding of people and of their taste. Experience in retail selling in a department store is of great value to the prospective stylist. He must have a good art education in color and texture, combined with a thorough knowledge of manufacturing processes.

For costume illustration, initial employment may also be found in the department store, in its advertising department, or in a commercial studio. The worker must have excellent pen-and-ink technique and be able to work with the lithograph pencil, wash, and color. He may specialize in layouts, technical illustrations, or in lettering and decorative backgrounds.

8. *Art Education*

The art instructor in a school or college and the curator in an art museum have the opportunity to teach and to inspire others to appreciate art. Positions in the educational field in the museum are, of course, for a more limited number than those in the elementary and secondary schools, art schools, and colleges. Travel and association with people of the art world are important in enriching the background of the prospective art teacher. Graduation from high school followed by a general college education is essential, either in a teacher's college, where art is specialized in, or in the teacher education department of an art school. A list of the names of art schools which train art teachers can be found in the *American Art Annual* for the current year. Some of these schools are: Pratt Institute, School of Fine and Applied Arts, Brooklyn, N.Y.; Columbia University, Teachers College, Department of Fine Arts, New York, N.Y.; Rhode Island School of Design, Providence, R.I.; The School of the Art Institute of Chicago, Chicago, Ill.; The Maryland Institute, School of Fine and Practical Arts, Baltimore, Md.; The Cleveland School of Art, Cleveland, Ohio; George Peabody College for Teachers,

Nashville, Tenn.; Pennsylvania Museum School of Industrial Art, Philadelphia, Pa.; Carnegie Institute of Technology, Pittsburgh, Pa. Interested students may be advised to write to one or more of these schools for a catalogue describing their courses, provided there is no copy of the catalogue in the school library.

9. *Guidance*

A good course of art study is a great help to the prospective artist or art teacher, even though some artists have succeeded without formal instruction. The prospective artist must have the capacity of accurate observation and the ability to mix his creative work with life. No amount of instruction can supply this. For those who contemplate following some branch of art as an occupation, lectures and exhibitions in museums and galleries are often helpful, but they are only a beginning. The pursuit of art as a major subject in high school is a step in the right direction. And then comes art school or college. Many scholarships for higher study in art are awarded annually to talented and deserving high school boys and girls. During the summer vacation, it is suggested that they plan to work and observe in a studio, workshop, or department store which provides experiences in art. It is urgently to be desired that the child who has the capacity to become an artist will find the right work, whether painter, sculptor, architect, commercial artist, industrial designer, curator, or teacher, and that he will prepare himself to become successful in the occupation of his choice.

It is significant of the new import of art teaching that the word "drawing" rarely appears in modern courses of study, nor is it used so often as formerly by teachers or pupils to designate the classes and periods given over to the study of art. One gratifying indication that this newer interpretation has become the keynote of art instruction in the public

schools is the emphasis placed on activities other than drawing, such activities as dancing and dramatization, for example. The study of art in occupations dealt with in this chapter should lead certainly to a desire on the part of the class to share with others the valuable experience gained. They should profit, therefore, by engaging in activities conducted toward this end. A dramatization or play at once comes to mind. The following outline is offered for the purpose of suggesting a workable plan of procedure for the unit:

10. *An Art Play*

Orientation. Wouldn't it be fun now to do something that would show others how important art is in living? Let us see if we do not have some really good ideas tucked away in our heads. Might it not be fun to write and give a play? Have you ever seen such a play about art? What would you put into such a play? Let us make a list of things recalling some of the reasons for studying art. Could we not make some of these ideas more clear and interesting to people by presenting them on the stage? The play might be developed to include the following:

For Scene I: Workers in the Field of Art

Do you not think the audience would be interested in knowing how some people make a living by art? What are some of the ways? The potters who make our jugs and dishes and vases would make an attractive study. They use different kinds of clay for different kinds of pottery. They use a potter's wheel and they must have a kiln to fire the pottery. Some kinds of pottery are glazed. There are fashion designers and stage designers who need paper, pencils, drawing boards, and models in order to do their important work. We must not forget the commercial artists who engage in the art made use of in the trades, in

business. They must decide what to advertise, the size of paper, where to place the lettering and the illustrations, and what colors to use. The painter also must be considered. For oil painting, canvas, easel, brushes, paint, oils, and turpentine are needed. The sculptor and the architect must not be neglected; they, too, have an important part to play.

For Scene II: Art for Fun

Do you think we could show our audience that art is fun? Can you think of something we do for fun that will show this? How about the making of masks? Masks are used for different holiday celebrations in various countries. In our country we use them most at Halloween. There are many different kinds of masks, and there are many different ways to make them. You may refer to books in the library for some of the ways. The next step will be to decide how to use our masks. They may be used to represent people of various ages, occupations, personalities, and other things. We might use them to represent art masters of the past and present. Whatever they are made for, they should be interesting, authentic, and well formed.

For Scene III: Art Is All about Us

How could we show that art is all-important, that its works are found in every community? The most primitive village in faraway Africa has craftsmen, painters, sculptors. In modern America we have the same groups at work. The difference between artists is mostly in their point of view and in the mediums they use. Can we show these differences so as to point out that, though they work differently, their work is of equal importance to the individual worker and of equal value to the community in which he lives?

Stage Setting. In order to present such a play effectively, simple stage scenery and effective lighting should be provided. As a background, a circular curtain or cyclorama should be used. A cyclorama of a neutral color, neither too light nor too dark, will make possible the best lighting effects.

The following properties would perhaps be essential for the first scene: a stool, some clay, a potter's wheel, a kiln, a drawing board, paper, pencil, easel, canvas, paint, and brush. These properties can be either real or constructed. Lighting the stage is important. Each of the three groups on the stage may be picked up in turn by the spotlight as occasion demands. The parts not being spotted will be blacked out until the end of the scene, when the border and footlights may all be brought up gradually to show all three groups of workers at the same time.

The properties for the second scene may include steps at center stage and a doorframe. The lighting for this scene should include both footlights and spotlight.

The third scene may require these things: clay, grass hut, drum, paper for water color, stool, paints, board, cloth, wax, dye. This scene will attempt to show that the difference between artists is in their point of view and in the mediums they use. A comparison between the work of permitive and modern artists should be clearly set forth in this scene. As the commentator changes from one scene to the other, the spotlight will shift from one to the other. At the conclusion the footlights may be brought up to reveal both at the same time.

If the audience can be made to understand the reasons portrayed for studying art, then our purpose will have been fulfilled. The scenes of the play are so presented that the audience may share our knowledge of the meaning of art in living.

11. *Art and Making a Living*

Several additional reasons for studying art in school have been given in this chapter. Art is present in most of the work done in school and at home. The study of art that includes many references to art in occupations helps the student to be more understanding in his dealings with others who use and produce art. We all need to be able to express ourselves intelligently, and studying art in school helps us do this not only with materials, but with words and actions. Art, therefore, helps a person to live better and also to make a living.

12. *Possible Outline of Experiences*

General Information: Art as a help to meet problems in living—Living more fully and expressing oneself artistically through art—Art paying dividends—Art in every productive occupation: to plan, carry out, and judge its product—Art in living—Art and making a living—Five divisions of visual art: painting, sculpture, architecture, industrial art, commercial art—Commercial artist: good imagination, a master of design and composition—Cartoonist or caricaturist: good draftsman, original ideas and skill to put them across.

Technical Information: Painting as expression through color—Oil painting; wood and canvas—Water color on paper—Fresco painting on fresh plaster—Sculpture, in three dimensions—Architecture, both artistic and useful: general architecture, or buildings of all sorts; naval architecture, or shipbuilding; landscape architecture, or planning, grading, planting around buildings—Commercial art made use of in business—Arranging of displays—Specialized types of subjects: figures, machinery, clothing, animals—Tracing in textile design: patterns, loom, Jacquard, prints—Working out color combinations—Adapting Jacquard design to squared paper.

Directed Activity: Inviting painter to classroom or having class visit studio—Making collection of good advertisements—Visiting outstanding monuments or memorials and studying

them and their makers—Visiting a sculptor or a stonecutter—Inviting an architect to visit the school—Visiting an engraver or etcher—Studying blueprints of buildings.

Creative Activity: Selecting a poor advertisement and trying to improve it—Making a cartoon concerning a school issue—Giving a play on Art in Living—Properties for play: pottery, painting, masks, scenery, poster—Making linoleum block prints.

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Chapter XVI

Art in Industry

Industry is interested in art primarily from the commercial side. It seeks to obtain skilled designers, craftsmen, and machine operators who can produce salable products. The manufacturer hesitates to put on the market a product that he thinks may not appeal to the average buyer; he fears lest he may overreach the public taste. Although he may employ a trained designer and trained craftsmen, he all too frequently declines to place on the market the most beautiful patterns that his designer produces. It is too often the manufacturer's opinion that the products which are best aesthetically will not be appreciated and purchased by the public at large.

Long ago there was a time when fine art and industrial art were regarded as synonymous. Then all craftsmen were considered artists and all artists were real craftsmen. The painter was a cabinetmaker, a metalworker, and an architect all at one time. Apparently the machine has been to blame for the change in point of view, for it came between the artist and his art. Its first artistic efforts were failures, for men had not learned its limitations nor had they realized its potentialities.

We have at last come to realize that the machine is a true friend of art and that its very limitations constitute its saving grace. The tendency of the medieval craftsman was to overdecorate, a crime of which the machine is of itself incapable. Under the influence of the machine, the emphasis in art has shifted back again from decoration to structure, from the ornamentation of an object of utility to the creation of the object itself.

1. *Art in the Industries*

As we travel through the towns and cities of the United States we are impressed with the numerous and efficient-looking buildings. These buildings, with their thousands of windows glittering in the sunlight by day or illumined from within at night, may be said to symbolize what is known as "American industry." The process of transforming raw materials into products constitutes industry, whereas the distribution of the products constitutes commerce. In our imaginations we might make a tour of one of these buildings and think of it as typical of them all.

As we enter the office rooms with desks shiny and free from dust, typewriters quietly tapping, employees efficiently doing their work, we can see that good design has been incorporated in every piece of furniture and equipment. The door through which we entered has a severely modern appearance with its chromium-plated handle. Even the water cooler at one side possesses the quality of beauty, for function and form have been carefully brought together in its design. In the colorful hallway down which we walk to one of the main workrooms, girls in serviceable, attractively colored costumes smile as they pass.

Once inside the air-conditioned workroom, we marvel at the massiveness of the glistening machinery and we note the skill of the men and women operating it. After passing many rows of machines, we see at the far end of the room

the finished product being packed into cartons and finally onto the waiting trucks. As we leave the building we realize that art has indeed given itself wholeheartedly to industry. It is not necessary to call attention here to the use made of art in the trades. Office buildings and department stores are probably more influential in developing good taste than are the art museums in some communities.

The chairs we may have sat in at the theater last night, the dishes from which we ate at noon, our bedroom windows and curtains—these are all examples of industrial art with which we come in contact every day of our lives. In the schoolroom we cannot escape the numerous products of industrial art—the books we study, the motion-picture machine in the assembly room, the instruments in the laboratory, the tools in the shops, and the school paper are examples of industrial art products, either good or bad in design. We may rightly conclude that there is little about us that did not have its origin in man's mind, to be manufactured either by hand or by machine in a factory and sent out to its destination to serve an essential purpose in our daily lives.

2. *The Craftsman-designer*

Years ago the craftsman-designer worked by himself in a shop that was often located in his own home. Paul Revere, patriot of the famous midnight ride, was such an artist, working with silver, wood, and other materials. Today his products are highly valued because of their good design and painstaking workmanship, especially his silverware. Baron Stiegel, an early Pennsylvanian, produced beautiful glassware. Cyrus McCormick and John Deering were the inventors of farm machinery which greatly increased the production of grain. The Wright brothers, Wilbur and Orville, designed and made the first airplane that would fly. All these men were, in their time,

(Photograph from The Museum of Modern Art, New York.)

Office in the Administration Building of S. C. Johnson & Son, Inc., Racine Wis., designed by architect Frank Lloyd Wright. Notice the unique, graceful dendriform concrete columns.

expert craftsmen, designers for the present and for the future.

Many of our modern industrial designs come from a designer's studio. We should give due credit to the persons who create them. The designer for industry is both designer and craftsman, for he brings together the material and organizes it in creating a new and different form, the purpose of which is to meet a human need. Today we often find a number of designers working together in a single large commercial design establishment. The professional craftsman-designer works on paper and in many other materials. Often he makes a small model for his new creation in order to get the effect of the completed article. He works this over until the work satisfies himself and others responsible for its manufacture.

3. *Industrial Materials*

Some important raw materials from which industrial products are made include wood, clay, leather, metals, cotton, linen, and silk. If you have ever visited a lumber camp, you know that it is a most fascinating place. You watch men chop down trees, which they call "felling" them, load them on wagons, and take them to the sawmill, and you watch the men at the mill trim the bark off the logs by means of large saws, leaving a square-edged piece of timber. These are cut again and again into boards which can be used for furniture and other things. It is, indeed, good to smell freshly cut wood. When the furniture manufacturer buys wood, he is particular about the kind he gets. Soft close-grained woods are best for toys and carving. Hardwood is best for furniture. Why?

Clay may be found in your own school neighborhood. Have you ever noticed any? It can be strained, mixed with a little water, and stored for future use. Foundations for masks can be modeled from clay. Leather comes from

animals. After the hair is taken off the skin, the hide is tanned. You can learn how to tool leather, dye it, or lace pieces of it together. Splendid gifts can be made from leather. Metals of various kinds are used to make jewelry and other things. Some of these metals are found in the ground, some on top of the ground, and some in streams. Gold is one metal that is found in all three places. It is soft by itself but when used in larger quantities it is mixed with some other metal. Jewelry can be made from either gold or silver. Iron can be softened in a hot fire and forged or pounded into various shapes. In this form it is called "wrought iron."

Flax, the raw material from which we get linen and cotton, is grown in a field. The fibers are gathered, refined in various ways, and spun into threads. Perhaps you have seen still or motion pictures of spinning on a large scale. Before the fibers are carded, or straightened out, the material is sometimes dyed in attractive colors. The fibers are then spun. Silk is a thread which the silkworm spins and winds around and around his body to form a cocoon. The silkworm is fed on mulberry leaves until it begins to spin. After it is completely surrounded by the cocoon, the worm is killed by soaking the cocoon in boiling water, which also makes it easier to unwind the silk. The thread is then spun, dyed, and wound on spools. The Japanese make beautiful screens and clothes from silk.

4. *Industrial Art Products*

Some of the industrial arts that are perhaps typical of those that may best be undertaken in schools are: Bookmaking (evolution of the book; invention of printing; how books are made today; how to make a booklet, a Japanese book, a book of one signature, a book of several signatures, a portfolio, posters; the art of bookmaking: suggested reading)—Papermaking (early ways of perpetuating records;

the invention of paper by the Chinese; processes involved in papermaking; baskets and boxes needed in the commercial world; corrugated containers; baskets of willow and rattan —a woven basket, a woven basket over a form, a sewed basket, a padded box with cover)—Brick- and Tilemaking (the brick in history; kinds of brick and tile made today; process in brickmaking; bricks for a toy house)—Pottery Craft (clay in making pottery; kinds of glazed pottery; old and new methods of building ware; pottery made in factories; decoration of pottery—a vase, a plaster-of-Paris form, a clay bowl, a square dish; pottery as an art)—Cement and Concrete (concrete as a building material; Portland cement; the aggregate; water; placing concrete in the forms; making a concrete box, a cement tile)—Textiles (carding; spinning; weaving; three types of weaves; a loom frame, a harness frame, a shuttle, a rug; art in textile fabrics)—Glass (early uses of glass; manufacture in the United States; variety of products; processes of production and decoration)—Woodworking (importance of wood and of things made of wood; lumbering; sawmilling, drying; furniture making).

"Culture that is genuine," writes Bonser,[1] "is founded upon and vitally involved in utilitarian activities. It is but the expression of these most fundamental utilitarian and social relationships in their idealistic aspects that gives us much of our most cherished art, literature, and music." Gradually we are coming to appreciate the significance of art as an important factor in industries in which design is involved, as well as in households interested in the products of such industries as contribute articles useful for homemaking.

The comfort and massive dignity of the Dutch Colonial furniture and the fine wood and delicate workmanship of

[1] Russell, J. E., and F. G. Bonser, *Industrial Education*, p. 36, Teachers College, Columbia University, New York, 1912.

Sheraton, Chippendale, and Hepplewhite furniture bring into our homes some of the charm of a period long passed. The furniture produced by Duncan Phyfe, one of the best cabinetmakers of the Early Republican period in America, is still prized. These styles of furniture and many others are still being produced or, more correctly perhaps, reproduced, in our American furniture factories located in Grand Rapids, Mich., and elsewhere. The present trends in American furniture are concerned with simplification of details. Flowing lines with least resistance for the eye are uppermost in furniture design. Chromium, plywood, steel, glass, and plastics are some of the new materials used, materials that stand for economy and durability. By using these materials, both sturdiness and flexibility are secured. New designs are constantly being brought into the markets through the work of designers cooperating with the architects and interior decorators. Three modern industrial metals that are rapidly coming into common use are chromium, aluminum, and stainless steel. These have been employed in the manufacture not only of furniture but of tableware, kitchen utensils, lighting fixtures, automobile parts, and many other things.

Ceramic products include all the articles made of clay and baked or fired in an oven called a "kiln," such as dishes, vases, and tiles. Pottery may be glazed or unglazed. Glaze is the vitreous or glassy coating which makes the surface appear smooth or glossy. Some pottery is fired only once, such as crocks and jugs. Porcelain is a fine kind of ceramic ware made of pure-white clay; it is once-fired and translucent. Under the heading of twice-fired pottery come such ware as faïence and majolica, which have an opaque glaze, and china and Belleek ware, which have transparent glaze—one that can be seen through. Terra cotta is a kind of faïence, of coarse material. An interesting modern use of ceramics is its application on metal, such as

for sanitary ware, including bathroom furniture and other plumbing fixtures.

Clay from which all pottery is manufactured is made up of small particles which cling together when moist. Once burned, clay never returns to a plastic state. Some of the finest dishes of today are made of kaolin, the purest form of clay. Common tableware often referred to as "chinaware" may be made of clay that is less pure than kaolin. Design for china in American homes of good taste is varied, from a single gold band running around the dishes to a complicated decorative pattern often carried out in several colors. The personal tableware of President Franklin D. Roosevelt is decorated with the coat of arms of the Roosevelt family. The President's official tableware, however, bears the great seal of the United States. Both patterns are of American design and manufacture.

Glass is made by melting together various substances such as sand and an alkali, potash, or soda, and some other material, as lime or lead oxide. Glass is blown, pressed, cast, and cut to a great variety of shapes. It is often colorless, but various colors may be imparted to it by the addition of certain metallic oxides. Glass is shaped by blowing or by inflating it, when heated to a viscid state, by means of a tube. It is pressed into molds while still plastic, or cast by pouring into molds. Glassware is sometimes decorated by cutting, or grinding, and polishing. Decoration of the surface of glass is also obtained by etching, in which lines are eaten in by means of some chemical agent, and by sandblasting. Plate glass is cast in thick sheets and flattened out by heavy rollers. It is used for windows and mirrors. Most common window glass is now made by first blowing the viscid glass in the form of a cylinder, which is then split lengthwise and opened out. In ground glass the transparency of the surface has been destroyed by grinding.

A textile is a woven fabric. Threads used in weaving are usually of wool, cotton, linen, or silk, although artificial fibers such as rayon and nylon also are used. The warp threads run lengthwise in a woven fabric; the weft, or woof threads, run crosswise. The many different ways in which it is possible to interlace threads produce different weaves, such as plain, twill, satin, sateen, basket, rib, and diagonal. There are woven patterns with variation in weave alone, such as is often seen in tablecloths, in brocaded silks, and in furniture coverings. There are patterns with variation in color, as in textiles where a pattern is obtained by weaving with different colored threads, such as in gingham, in tapestries, in striped ribbons, and in blankets. Sometimes, when a combination of different weaves and different colors is made in pattern weaving, we have what is known as Jacquard designs in textiles. These are produced on a complicated machine called a Jacquard loom.

Another way of producing decorative patterns in textiles is by means of printing. In early times printed textile patterns were made by hand, by block printing. Later, machinery was invented to do the printing by means of rollers which stamp the designs on the fabrics. This process may be limited to the application of a single color or it may involve the use of many colors in an intricate design. In either case the stamping is done by one passage of the cloth through the printing press. Patterns may be dyed into textiles by the use of a resist to the dye, as in tie-dying and batik. In tie-dying, pressure exerted by a string forms the resist; in batik, the wax resists the dye.

Still another way of obtaining textile decoration is by the use of plain textiles: In appliqué, a motif cut from another textile is sewed on the surface to be decorated. In embroidery, the textile is enriched with needlework, a motif being worked on the fabric with threads. In drawn work, threads of the material to be decorated are drawn, and the

cross threads united to form a web. When threads are loosely interwoven to form a meshed fabric, the product is called "net." Knitted and crocheted fabrics come under this classification, both hand and machine made. Another important subdivision is lace. Lace may be hand knitted or crocheted, or it may be made with a needle or a bobbin propelled either by hand or by machine. Some of the best known types of handmade laces are Cluny, Valenciennes, point, and pillow, all of which have inexpensive modern adaptations made by machinery.

Under the heading of costume come all garments worn by men, women, and children: suits and uniforms, coats and dresses, underwear, furs, hats, and such accessories as stockings, ties, belts, ribbons, trimmings, and flowers.

Much of the textile output is used in manufacturing clothing. Fashion often dictates the type of material to be used and the cut of the costume for all four seasons of the year. People of good sense do not wear heavy clothing in the summer and neither do they wear lightweight clothing in winter. Cotton, silk, and wool are gradually giving way to rayon, nylon, and other artificial fibers and to combinations of these with cotton, silk, and wool.

The purpose of a fabric determines its surface qualities, compactness, and weight. The thread and weave of various kinds of clothing are determined also by the purpose to be served. Some of the purposes call for elasticity, others for inelasticity. Curtain fabrics must have correct weight and stiffness in order to hang properly; upholstery fabrics for furniture covering must be especially strong and durable.

The making of paper itself is an industry involving considerable art. Today there are machines for making paper, though certain fine grades are still made by hand. Paper consists of cellulose fibers in a more or less pure condition. It was made in early times from the inner bark of the mul-

berry tree by the Chinese, who used other fiber materials also and spread a knowledge of it to other nations. Newsprint paper is made chiefly from wood. The best writing paper is made from linen rags.

5. *A School Bazaar*

Foremost among the activities appropriate for a unit on "Art in Industry" should be mentioned the school bazaar, which requires that articles be constructed, advertised, and marketed by the pupils themselves. The following procedure is suggested:

Earlier in this chapter clay was mentioned as an art medium. Clay can be modeled into faces over which can be made masks, which should make attractive decorations and might be worn on special occasions. After the clay is made ready, a lump is flattened out to the size you want the face to be. The size should be determined by the use the finished mask will be expected to serve. On this beginning, or foundation, smaller lumps of clay are added to build up the forehead, chin, and nose. Then the hollows for the eyes are scooped out. Modeling tools may be used to help the figures shape these parts. When the face is completed, paper cut into strips about ¾ inch wide are dampened with water and glued one on top of the other over the entire form. Several layers of paper strips are applied, each layer being glued down smoothly. When the last layer has dried completely, sandpaper may be rubbed over the surface of the mask to finish it. The clay can now be removed from the back and the mask made ready for painting. The painting may be done with poster paints either realistically or decoratively. To add a polish to the masks, a coat or two of clear shellac or varnish may be spread over the entire surface. Ears and headdress may be added to the mask if they were not included in the original clay form. If quantity production is desired, masks can be made over

plaster forms cast from the original clay models. Care has to be exercised to keep the mask from sticking to the plaster form. This can be accomplished by greasing the form and covering it first with wet strips of paper and no glue.

If you have ever seen one of those charming models of fishing schooners or frigates delicately carved, you have doubtless wished that you could own one. Most of these boat models were done in spare time and put together with loving care, piece by piece. If you decide to make a boat model, one of the first things you will need to know is the kinds of wood suitable for building it. Balsa wood, basswood, boxwood, teak, mahogany, and white oak are all suitable for certain purposes. Every detail should be accurately worked out to scale. Waxed cord may represent ropes, and oiled paper may be used for the sails. Suggestions of color may be added, and a coat of shellac or varnish will give the final finish to the boat.

If, instead of building a boat model, you prefer to make some linoleum print, remember that the picture you are to make will be printed in reverse. It is well, therefore, to transfer it to a piece of transparent paper before transferring it to the block. When your design has been drawn, you are ready to prepare the linoleum block. The design should be interesting in composition as well as in subject. When you are ready to transfer the design to the linoleum, blacken in with a pencil or brush the parts that you intend to cut away. After the design has been put on the block, it can be outlined with the chisel called a "veining tool."

It is important to keep your tools sharp. If the tools are not sharp enough, you will have ragged lines and will find difficulty in keeping the tool under control. You will have to be careful not to cut your fingers. It is helpful to practice types of strokes until one has the feeling of the tool. In printing, sometimes several proofs will

have to be pulled from the block before a good one appears. This gives the pores of the linoleum time to fill with ink. Rockwell Kent makes interesting prints. Ernest Watson, Earl Horter, and Ray Pullinger also have contributed generously to this field. Some of these artists use wood blocks and some use linoleum. It is more difficult to prepare wood blocks and to print with them. The processes involved in the two mediums are about the same.

Carving soap gives much satisfaction to the young craftsman. In carving a cake of soap, a design is first made and then a cake of soap of suitable size and color is chosen for the work. A silhouette outline is then drawn on or transferred to the soap on the front, both sides, back, and top. These lines act as guides to help the craftsman keep his design in mind as he works. The soap may be roughly carved with a knife or other tool. Then the carving is refined by cutting and scraping until the material is as smooth as desired.

Many beautiful textile products may be made in school on a hand loom. The hand loom consists of a frame on which the warp threads are strung. The threads which go across are the weft, or filling threads. There is a shuttle that is worked in the hand to carry the weft thread across the warp threads as the loom operates. Have you ever noticed rugs with simple and complicated patterns in them? Some of these will be good examples to study. When it comes to designing a rug, it will be better, of course, to create an original pattern.

Cotton and woolen yarns can be woven into attractive rugs and mats. In Murray Bay, Canada, and in certain sections of New England, people earn a living by making hooked rugs of original design. In other parts of the United States, too, rugs are made as handcraft, but on a smaller scale. Chenille is sometimes employed in rugmaking. It is made of a few threads around which short threads are

twisted and cut. This material is generally made from cotton. Several hooked-rug needles are available, but for the beginner the simple one with a round eye, set in a wooden handle, is best.

Although a rug pattern stamped on a burlap foundation can be bought, it is much more satisfactory to make an original design. Get a good piece of burlap and draw your pattern on it in heavy lead pencil. When you have the burlap tacked on a wooden frame, you are ready to thread the needle and begin. The needle is punched through the burlap, to the underneath side, allowing a loop to remain there. Then it is pulled back to the starting position and a tiny space left, and the operation continued as before. One hand must remain under the cloth to keep the loops uniform in size, for the underneath side is the right side of the rug when finished. The main precautions to observe are: (1) keep the loops uniform in length, or height; (2) make the loops close together. This makes the surface firm and durable. In finishing the rug, all loose ends are sewed down to keep them from pulling out. The edges of burlap are turned over and sewed in place. If the work has been done well, the rug should be beautiful on both sides.

6. *Art Important in Industry*

We are surrounded by hundreds of industrial products which we use or come in contact with every day. Many of these are inartistic, but all are works of art, either good or bad. Anything so made that it serves a worthy end well is almost certain to have beauty. If in transforming the materials the work has been beautifully done, the result may properly be considered fine art in the sense that fine art is superior art. Industry has given us much of the beauty that we see about us, in the things we use and wear. Their excellence depends on their design quality. The artistic taste of the designer is revealed in his work. If the

designer has good taste, he is able to achieve beauty in meeting utilitarian needs directly; in other words, his work may be said to be aesthetically functional.

7. *Possible Outline of Experiences*

General Information: History of art in industry—Industry: the process of turning materials into products—Commerce: the distribution of the products of industry—Designers for industry bring together the material and pattern into a beautifully created form to meet a particular need—Art industries: ceramics, furniture, metal products, textiles, paper—Paper—Paper products: wallpaper, printing and publishing products, newspapers, magazines, books—Chromium, aluminum, stainless steel, and plastics: kitchen utensils, tableware, automobile parts, furniture.

Technical Information: Good design in office and factory equipment and furniture—Raw materials, processes—Glass: cutting, grinding, etching, sandblasting, blowing—Pottery: clay, porcelain, glaze—Weaving: wool, cotton, linen, silk, artificial fibers, warp, weft—Patterns in textiles: different weaves and colors, block prints, tie-dying, batik—Paper: cellulose fibers in a more or less pure condition—Hooked rugs, how designed and made.

Directed Activity: Discussion of products of industrial art—Research in library—Keeping a notebook—School tour of factory, department store—Lettering labels for bazaar—Visiting museum to see industry of colonial America and ancient civilization—Making a simple loom.

Creative Activity: Making masks—A hooked rug—Sculptured form—Boat models—Linoleum block prints.

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Chapter XVII

Art and Business

Art is tied up with business more often than most of us think. Business has to do with the exchange of goods, either materially or financially, whether it be between two concerns within a limited territory or between cities, states, or nations. It is the supreme task of commercial art to create a desire for a product advertised. Once art has propagated the idea that a product is desirable, it must still further create a demand by associating the product with use. As an example, the advertisements that most often catch our eye these days by their vividness in color and strength of design are those advertising automobiles. To depict the action and speed of these vehicles, action and fast motion must of necessity be expressed in the advertisements. Design in the products themselves is stressed in such advertising. Design in the product will sometimes sell it. "If a man preach a better sermon, write a better book, or make a better mousetrap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door." Yet advertising is generally needed to

popularize a product even though it be better than that made by anyone else.

1. *Commercial Art*

It must be kept in mind that what is done in the name of commercial art is done to satisfy the buyer rather than the artist. The advertising designer must be able to take as well as give. The kinds of commercial art products are many and varied. In most instances we have become immune to much that we see about us and scarcely appreciate or even strive to comprehend all, either in nature or in art. The billboards that we have on buildings, the posters on buses and in streetcars, all form part of what passes our vision daily. Unless they are most commanding we pay little or no attention to them.

The advertisements that most of us come in closest contact with are probably those shown in newspapers and magazines. These are so accessible that we usually take a longer time to examine them and to realize their significance. Dry goods, machinery, clothing, and displays of these articles of merchandise constitute a large part of what makes up the field of art as it relates directly to business.

Commercial art as a profession offers a great variety of work for advertising artists who have the ability to design for the industries and trades. In order that their work may be reproduced successfully, they must have a knowledge of woodcuts, line cuts, half-tones, and color prints of all kinds. A good design is more important than the technique, although both are important. An improvement in the design of a product stimulates sales. Consequently, a good commercial artist must have a keen imagination and a sense of proportion and fitness in order to be able to redesign and thus improve the appearance of products. He must be able to see and think not only as an artist but as others do, and apply this knowledge to his creative work.

It might be both interesting and profitable to visit a commercial art studio in order to see how advertisements and designs are produced. If this should seem practicable, the plan and purpose of advertising could be discussed by the class before and after the visit and a comparison made of the ideas presented. One group of pupils might make a collection of examples of good and poor lettering and criticize them and make suggestions as to how the poor examples might be improved. Another group might make a collection of industrial products which in its opinion could be made more salable through better design.

Children often surprise us with the results they achieve when asked to use their imagination in designing such things as place cards, menu covers, assembly programs, posters for the American Red Cross, or some school activity. Prizes are sometimes awarded for the best school emblem designed and submitted by a student. Although there are objections to overdoing the competition idea in art classes, such contests sometimes serve to stimulate an interest in art as well as in the cause espoused. Students will meet with keen competition in the world after they finish high school and there seems to be no good reason why this competition should not begin before graduation. The school newspaper offers many such opportunities to develop skill and an understanding of the various phases of commercial art, in connection with illustrations and advertising.

2. *Advertising Art*

Characterized by machinery, airplanes, skyscrapers, radios, technicolor movies, automobiles, neon signs, swing music, and the quickened tempo of everyday living, modern life is perhaps best expressed by modern advertising art. Advancement in human affairs has stimulated a continuing search for more appropriate expression. Adequate expression in the field of business is today being realized

(Courtesy of Hutzler Brothers Co., Baltimore, Md.)

The object of commercial art is to give aesthetic pleasure, thus creating a desire on the part of the public to acquire the product advertised.

in greater measure than ever before through the art of advertising.

As a profession, advertising art is a living art ever changing in its effort to appeal to people and to hold their attention in such a way as to win friends and influence people. In this field there are two divisions with which the student should be familiar. These are layout and design. Both will be discussed at greater length.

3. *Layouts*

The best modern layouts come from designers who have learned to discriminate between true modernism and the mere attempt to do something that is different. Some layout designs lack creative imagination and are mere imitations of other designs. The striking effects in layout command attention, and the selling idea is quickly understood by the observer. It is not always necessary to invent an eye-catcher for an advertisement, as the advertiser relies mostly on the attractive qualities of contrast and color, and the ability of the layout worker to combine these to secure interest. It may be contrast or color arranged so as better to express the selling idea and give a better conception of or feeling toward the product in such a way that the reader will be unconscious of the bait. With color alone, action and feeling can be effectively expressed through symbolism. Thus, red may be used to express anger or passion; blue, peace or contentment; yellow, happiness; purple, power or majesty. Illustration symbols also are used: torch, mask, lion, eagle, crown, cornucopia, shield, lyre, cross, star, palette, and many other forms that fit particular needs. Other considerations being equal, the more concisely the idea can be expressed in a layout the stronger the advertisement will be.

The layout man must have a working knowledge of the product to be marketed or the cause to be publicized, he

must know the purpose of advertising, the length of the copy, the kinds of publications to be used, and the size of the spaces involved. He must keep in mind the attention the advertising will draw, the color, movement, emphasis, unity, balance, appeal, simplicity. He must be able to test his layout for strength and weakness as advertising. Color is the most vital factor in creating an effect. Both neatness and accuracy should be attained in all layout work.

4. *Design*

There is a need today for a guide to judgment of art form in advertising. Competition in speed between manufacturers has changed to competition in aesthetic excellence and originality, which calls for a revision of ideas for advertising displays. The designer works to meet the new business needs and conditions that surround him. He must not only be adept in assembling colors, lines, masses, and materials, he must also possess a knowledge of the desires of his public. In addition to all this, he must have a thorough understanding of the needs of the buyers, should know under what conditions his design must exist, and what the trend of inspiration is at the particular time when he makes it.

Primarily, a design is the arrangement of details according to a plan. A design is a plan of something to be done and includes both the thing itself and the method of producing it with materials: with fabrics, in the case of clothing; with merchandise, in the case of displays. Success in design depends upon the artist's understanding of his medium, including both materials and processes, and upon his ability to use such principles of design as suitability, emphasis, proportion, rhythm, and balance.

The essential elements of design are, as pointed out in Chapter X, line, mass, and color. Usually these elements do not exist alone; one must and generally does predomi-

nate. Line is one-dimensional, possessing length only, it has to do with direction, and it may possess great force and character. Mass is two-dimensional, always having length and breadth and sometimes length, breadth, and thickness; it may have surface texture and solidity. Color is light; it may have value only, as in the case of the neutrals black, gray, and white; it may have hue, value, and intensity, as in the case of the chromatic colors red, yellow, and green.

Design may be considered from the structural point of view and the decorative point of view. Structure refers to the construction of a product, and decoration to its aesthetic effect on us, its beauty. The appeals that are made to the customer through design are numerous and varied. For the sake of vividness and clarity of impression, the designer should place emphasis on one idea at a time. Lack of unity in his work will result in diffusion of attention; it distracts the mind, so that the observer loses interest. To be successful, all design must contain an idea and must be arranged so as to be easily understood.

5. *Lettering*

There are certain fundamentals to be noted in the art of lettering as we know it today to which attention should be directed. All lettered inscriptions should be legible, and the letters must be so spaced that the entire inscription is seen as a coherent whole. The purpose of the lettering will influence the style and arrangement of letters. The choice of letters for a particular purpose will vary, as letters to be seen and used for outdoor purposes have to be larger than those used in an indoor display. Letters should be enriched with the characteristics of the tools and materials used in the making of them: painted letters should exhibit the flexibility of the brush; pen letters, those of the pen. For letters to convey a message to the fullest extent they must have certain qualities: uniformity, emphasis, and contrast.

The aim of spacing in lettering should be to produce an evenness of tone; light letters usually show to better advantage with more space around them. Heavy letters have a better effect when placed close together. Lettered words should always be easily readable. Uneven spacing is the prevalent fault in poor lettering. Uniformity of style, character, flow of line, and a lasting rhythm throughout are desirable qualities to be attained. Many letters placed close together require a simpler form than do fewer letters spaced far apart. The aim of the designer should be to draw attention to particular areas in the advertising layout or poster to increase the interest in them; not to destroy the purpose of the letters, which is the unity of the whole.

The following suggestions entitled "Do's and Don't's of Postermaking," should be helpful to the boys and girls engaged in poster work.

1. Plan out your ideas. Make a little sketch or cut-out first to see how it looks.
2. Decide on your colors. Don't use too many.
3. Arrange your wording carefully. Be sure that it fits in as a part of your poster.
4. Keep all your areas flat and simple. Put the softest colors in the largest areas and the strongest ones in the small spots.
5. Don't have too much wording or too many small spots in your design.
6. Try to keep all the parts of your poster so that they lead the observer's eye from one part to another.
7. Make believe you are some passer-by who is looking at your poster for the first time. Does it make you want to buy or do the things it tells you about?
8. Be sure that the message can be easily read. Use a simple alphabet and make all letters carefully.
9. Always use the best medium possible—paper as well as paint.

6. *Displays*

Display has been called the language of advertising, and good taste in display implies the knowledge of how to use this language. The designer must know its possibilities in expressing ideas, must know how to choose and arrange his advertisements and exhibits. He must know the power of displays to attract and hold interest and to stimulate favorable action on the part of those who see the exhibits.

Getting a display together might be compared to the job of a stage manager, who in the theater has to arrange everything from the movement of the actors, the expression of their faces, and the inflection of their voices down to the lighting and the arrangement of properties on the stage, the painting of the scenery, and the background. In this way also does the advertising artist determine the style of his displays.

7. *Poster Project*[1]

In recommending a culminating activity for the unit discussed in the present chapter, we can do no better than to include at this point some suggestions for conducting a poster project in which all boys and girls in the class are invited to participate, the making of posters, in this case to stimulate membership in the American Red Cross. Regulations governing the project are as follows:

1. Requirements of the problem
   a. Purpose, to create interest in the Annual Roll Call of the American Red Cross.
   b. Poster to be exactly 22 by 28 inches.
   c. Drawings to be done in color on white cardboard.
   d. The pupil's signature accompanied by the name, number, or initials of his school may appear in inconspicuous

[1] Courtesy of The Baltimore Chapter, American Red Cross.

lettering on the front of the poster. If not on the front, it should be placed on the back of the poster.

e. All work to be original in the sense that it is not to be copied from a poster or other drawing or design by an artist. All work to be done entirely by pupils under the observation of the art teacher.

f. All drawings submitted to become the property of the local chapter of the American Red Cross.

g. All posters must reach the Museum of Art not later than noon on Monday, April 1.

2. Themes (All these should, if possible, be represented in the posters from each school)
   a. Blood Transfusion.
   b. Braille Transcription for the Blind.
   c. Disaster Relief and Preparedness.
   d. Canteen Service.
   e. First Aid to the Injured.
   f. Home and Farm Accident Prevention.
   g. Home Hygiene and Care of the Sick.
   h. Home Service to the World War Veteran and Serviceman and His Family.
   i. Hospital and Recreation Service.
   j. Junior Red Cross.
   k. Lifesaving and Water Safety.
   l. Nutrition Methods.
   m. Production—Sewing for Local, National, and International Needs.
   n. Roll Call—Membership Campaign.
   o. Staff Assistants.
   p. Surgical Dressings for International Use.
3. Poster qualities to be considered
   a. Effectiveness in attracting instant attention and holding the attention for at least a few seconds.
   b. Efficiency in imprinting, in a flash, its pictorial message and wording on the minds of observers.
   c. Simplicity and force of composition.
   d. Color harmony and general artistic layout and design.

e. Inspirational effect transmitted through the feeling of idealism conveyed.

4. Exhibition of posters
   a. The posters selected will be shown at the Museum of Art during the first two weeks in April.
   b. A jury of selection, consisting of a representative of the American Red Cross, an artist, and an art teacher, will be designated by the Executive Director of the local chapter of the American Red Cross to pick the posters to be exhibited.
   c. If any of the posters should later be reproduced it has been agreed that the names of individuals and of schools involved will in each case accompany the reproduction.

Literature relating to the American Red Cross as well as poster board will probably be furnished on request to all schools participating, by the local chapter of the American Red Cross organization.

8. *Promotion through Art*

Throughout this chapter, the idea has been put forth that art plays an important role in the promotion of selling products and inducing upward trends of business. The ways of propagating ideas through commercial art, advertising art, layouts, design, lettering, and displays have been included and their relation to the subject discussed. Perhaps when we next come in contact with posters or other forms of advertising art we shall think of the mediums and processes required to create a desire by associating the product with the advertisement whose purpose it is to popularize it.

9. *Possible Outline of Experiences*

General Information: Business and exchange of goods—Commercial art to create demand for products or to propagate ideas: to focus attention, to create desire, to associate design with product—Field: preparation of layouts to sell merchandise, for

magazines, newspapers, billboards, car cards, announcements, package designs, labels, trade marks, catalogues, artistic photography, good typography, displays—Advertising illustrations—Specialization in lettering, figures, machinery, clothing, animals, posters, displays (window, showcase), motion pictures—Art director, employed artist, free-lance artist—Imagination, sense of fitness, fashion, names of American commercial artists, design and composition, selling sense, pleasing as well as result getting—Improvement in design necessary to sales.

Technical Information: Lettering: variety of styles in harmony with subject matter—Poster: combination of illustration and lettering; color applied flat, mediums—Subject matter: message told simply, forcefully—Show-card writing, sign painting: combination of decorative illustration and brush lettering—Symbolic subjects: torch, mask, lion, eagle, cornucopia, crown, shield, lyre, cross, star, palette—Good design more important than technique—For commercial art as a profession, knowledge of reproduction processes, woodcuts, line cuts, half-tone and color processes—Improvement in appearance not to interfere with usefulness.

Directed Activity: Collecting examples of commercial lettering in good advertising—Lettering and illuminating "Art and Commerce" or other title appropriate to unit—Tracing for notebook: monograms, labels, trade-marks, book plates, other arrangements of lettering—Visiting commercial art studio, printing establishment, department store, factory—Reporting on assigned topics: Kinds of Commercial Art Products, Purposes of Advertising, Design Quality in Commercial Art, Art Form in Advertising, History of Commercial Art, Advertising Design as an Occupation—Modern masters of advertising design in America—Collecting examples of industrial products made more salable through good design, decorative construction.

Creative Activity: Place cards for a dinner—A menu cover with appropriate lettering—Design for cover for assembly program—Poster to advertise a school activity or to popularize "The American Red Cross," "Be Kind to Animals" or other worthy enterprise—Small booklet involving cover, a school emblem, end papers, title page, illustrations, pages of lettering—School museum: display of work done in connection with unit—Con-

tainers and wrappers for industrial commodities—Labels—School activity poster.

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Part V

CIVIC RESPONSIBILITY

How Art Is Used to Make a Better World

Chapter XVIII

Art and Space

The visual arts are sometimes referred to as the "space" arts because they occupy space, either two dimensions as in the case of paintings or three dimensions as in the case of sculptures. Yet three dimensions may be suggested in a painting and two dimensions in a relief sculpture. The division of space is a matter of design, since space division results from arrangement of masses and colors.

As pointed out in Chapter XII, works of art exist in both time and space. They are produced wherever men live and that means almost everywhere on earth. Yet artists do not paint the same kinds of pictures, wear the same kinds of clothes, build the same kinds of houses, travel the same way, in all parts of the world. Why is it that art products differ so widely in different localities?

1. *Physical Conditions*

Why do not the Eskimos of Alaska wear the same kind of clothing as is worn by the inhabitants of Mexico; why do not the people of bleak Scandinavia build the same kinds of houses as those living in Sunny Spain? Physical condi-

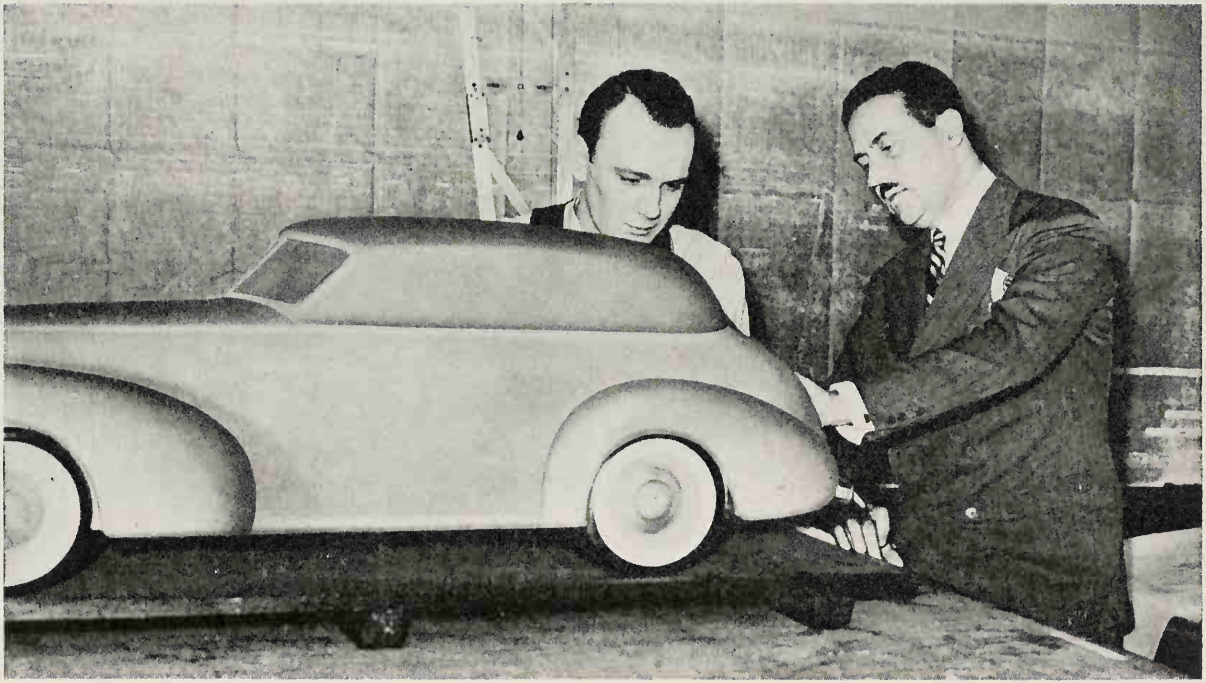
tions of countries differ widely; climate has its effect on art. Some lands are high and mountainous while others are formed of rolling hills, still others are mainly lowland plains. One does not travel over the Alps of Switzerland as he would cross the Sahara Desert. We should need to wear different kinds of clothes and live in differently constructed houses in order to be comfortable in these environments.

2. *Raw Materials*

What people make with their hands in different localities depends largely upon the kinds of materials they find available or can produce. It is because of these differences of climate and of land formation that different raw materials of art are found in certain parts of the world, while absent from other parts. Where there are abundant forests, people make furniture and houses of wood. Where marble is found, they carve statues from it. Deposits of clay encourage the making of pottery; deposits of sand, the making of glass. People use the grasses grown near by or the fibers from cotton, silk, linen, or wool in producing textile fabrics. The raising of animals induces men to tan hides, to tool the leather, and to make useful objects; the mining of metals, to metalcraft.

3. *Transportation*

People travel by automobile, railroad, boat, and airplane. These methods of transportation are now used quite generally throughout the world, although more automobiles are owned by people in the United States than in any other country. Modern means of transportation are characterized by speed, comfort, and beauty. We see streamlining playing a prominent part in our new designs for vehicles of transportation. Automobiles of today are low and long, with curves replacing the angles of yesterday. Loco-



Raymond Loewy, industrial designer, puts the final touches on the clay model fashioned from his drawings while an assistant looks on. Blue prints, showing the engineering features of the automobile hang on the wall behind them.

motives follow the same general plan, and so do steamships, and airplanes.

As pointed out in Chapter IX, streamlining is not just a fad. It has evolved from necessity. We have, however, only recently arrived at complete streamlining in the steam and electric locomotive. Ever since the time of the earliest locomotives in this country, such as the Tom Thumb and De Witt Clinton, locomotives have been changing, growing larger and more powerful, but the distance between the rails and the height of bridges from the tracks have remained the same. There was nothing for the locomotive to do, therefore, but to become more and more streamlined as it grew to fit the limitations set by the space between the rails and the height of the bridges. This streamlining by evolution in locomotives was gradually extended to other conveyances, including the automobile and the airplane, which are probably more beautiful because of it than they would be had merely the principles of design been operative in their construction.

Our modern modes of transportation are, of course, less used in the backward, inaccessible places of the world. An automobile is not practicable in Hawaii, nor in the Alps, nor in the African jungle. Most people living in these regions still have to resort to other means of travel. We still find dog sleds common in the northern countries, oxcarts in the high plateaus, donkeys on the steep mountain paths, jinrikishas in China and Japan where human labor is cheap, camels in the desert. To travel through the swift, icy streams of the north, men use kayaks, which are small boats made of skins with an opening just large enough to fit around the waist.

4. *Costume*

Since climate affects dress, we find that people of the north dress in furs and heavy wool while those of the south

wear thin, loose-fitting clothing. The men of the highlands of Scotland wear kilts or short skirts, that they can more easily climb the mountains of their rugged country. The Japanese wear silk because the silkworm thrives in Japan. It is natural that with so much silk at hand these people should use it for their own clothing and should export it for the use of others. In England, where sheep raising is an important agricultural occupation, the woolen industry thrives, the people wear woolen garments and export woolen clothing. People of the south wear cotton, not only because it is cool but because the cotton plant flourishes there.

We find that in general people wear clothing made of the kinds of materials that are easiest for them to secure. We find that even the colors depend to some extent on the dyes most easily obtained in a locality. That is why the American Indians wore clothing made from the hides of animals, used the feathers of birds for trimming, and dyed them the colors they could make from various fruits and herbs. Although improved methods of transportation have made it easier for people to procure what they want often from distant sources, yet climate and physiography still exert a powerful influence over the clothing worn by various nationalities.

Transportation facilities in our country today have made it comparatively easy to secure raw materials that formerly were not available. Therefore, we are not limited to a single textile material, as people of smaller and less fortunate countries may still be. Modern methods of trade are thus gradually enabling people all over the world to enjoy an ever greater variety of materials and are bringing about a mutual exchange of ideas that is leading to increased variety in dress in most localities. Already New York is competing with Paris as the fashion center of the world. Good clothing is designed to be comfortable, practical, and

simple. Cool clothing for hot weather, warm clothing for cold weather, should be the rule regardless of the changing fads and fashions.

In Mexico, our nearest neighbor to the south, the people wear large hats, to protect themselves from the hot sun, and long, loose wraps, like blankets, called "serapes." Europe is made up of many separate countries, many of them small, but each until recently has been able to maintain its individual customs and traditions. One of the most interesting costumes is that worn by the people of the country districts of the Netherlands. Here the women wear full skirts with white blouses and little white caps stiffly starched. The men wear full, long trousers which fit tightly at the ankle. On festive days in Spain the women wear elaborate gowns with full skirts, and lace mantillas draped over high combs on their heads. The men wear tight-fitting, narrow breeches, brightly colored sashes, and wide-brimmed hats decorated with a fringe.

Peasant costumes with elaborate, gaily colored embroidery are typical of the people of central Europe, while in Asia we find the well-to-do people wearing gowns of rich silks. The Japanese wear kimonos; the Chinese, trousers. In India loose robes of cotton predominate, simply a long piece of cloth wrapped or draped around the body.

5. *Architecture, Painting, Sculpture*

If we were to travel over the world, we should find many different types of houses, such as the stone houses of the English, the wooden houses of the Scandinavians, the bamboo houses of the Japanese. In our own country we have houses of wood, brick, hollow tile, concrete, steel, stone, and of a combination of two or more materials.

The outstanding characteristics of modern architecture in the United States are simplicity and usefulness. Instead of planning houses from the outside in, the architect of

today plans them from the inside out. That is, he considers first what rooms are needed in the house, what size each should be, where windows and doors are needed. Then he makes the outside wall arrangement fit the inside requirements. There are many advantages in this way of planning. Modern architecture often involves the use of such materials as steel and glass introduced in new and different ways and it provides for most, if not all, of the conveniences that make it possible to live in comfort while at home.

The modern home contains furniture that is simple in design, useful, and comfortable. A modern chair is not made as it is simply to be different. Instead, every change in its design has been made for some good reason; steel tubes have replaced the wooden frame because they are stronger and more durable. A tea or coffee table may have a glass top because glass is more easily cleaned than wood, and it is also attractive. The table has chromium steel legs because they are strong, beautiful, and not easily damaged. If wood is used, its grain may serve as decoration in place of elaborate carving. Although usefulness and comfort are considered first, the result is generally an increase in beauty as well.

We have in our cities great skyscrapers like the Empire State Building because there is insufficient room for buildings to expand on the ground. They had to grow upward. Thus, a new kind of building had to be constructed, the skyscraper. The zoning laws of New York City, through their provisions for light and air, have resulted in a great improvement in these tall buildings, which were at first ugly and ungainly in appearance. Factory buildings also are showing much improvement in their design. The new buildings generally have flat roofs, walls of brick, tile, and glass, and steel-post construction.

Frank Lloyd Wright has had more to do than any other architect with the development of modern architecture.

Our modern painter tries to show life as it is, the city slums, factories, and workers, life on the farm and in the market place. We expect him to paint because he has something to say. John Steuart Curry, Thomas Benton, Grant Wood, Rockwell Kent, John Marin are perhaps representative of the present trends in painting. Today sculptors no longer worry about showing every muscle and small detail of the body. Instead, they try to make their work express feeling and emotion. Some of these men are Jacob Epstein, William Zorach, Maurice Sterne, Paul Manship, and Alexander Archipenko.

Of all the various products that might be inspired by the study of art and space, a mural perhaps has the greatest number of advantages, since it affords opportunity for realizing the high purpose of architectural decoration through the achievement of illustration and space division in design. The following presentation of activities should be helpful to the teacher who would conduct such activities.

6. *A School Mural*

In order to show how art expression differs in various countries, you could, of course, make illustrations showing the people, houses, and means of transportation in each country. But better still, why not combine all these into one large painting or series of paintings? A mural is, and should be, a wall decoration. In what schoolroom could this type of painting be used to the best advantage? Do you think it would be appropriate for the history room? The social studies room? It is rather difficult to think of social studies without thinking of maps and diagrams, isn't it? Perhaps you can work in some maps somewhere in the mural. You might begin by making a list of some of the different things that the student needs to know how to draw, such as maps, people, houses, vehicles, landscapes.

In order to show the costumes worn in different countries you should know how to draw the human figure well. You have already learned much about the houses of different countries. Select the type of house in which you are particularly interested and make a sketch of one side of it. Notice how the house is arranged. Does it have one, or more stories? How large are the windows, the doors? What kind of roof does it have? If you would like to show the house as it would appear with one of its corners toward you, you will want to make the receding horizontal lines extend toward two vanishing points, one at the left and the other at the right. These vanishing points would be exactly opposite each other, on the horizon line at the level of your eye.

In showing ways of transportation of the various countries there is a wide variety of subjects from which to choose. You might like to draw animals, automobiles, airplanes, or streamlined trains. In any case, you will need to observe proportions carefully. Is the ox larger or smaller than the cart? How large are the wheels of an automobile? How far apart are they? How does the length of an airplane compare with the width across its wings? How many times longer is a train than it is high? You can use your knowledge of the human figure and show one pulling the cart, driving the automobile, or engaged in some other activity.

Now that you have studied the people, their houses, and their means of transportation, you are ready to arrange them in a composition against a background. What should such a background include? A landscape typical of each of the countries treated? Could you use the map of each country in connection with the landscape and people arranged against it? What other suggestions can you make for the mural?

Make some small preliminary sketches, trying different arrangements. Remember that only one thing in the pic-

ture can be most important. All other things must be subordinated to it. This does not mean that there may not be lesser centers of interest too. After you have made several sketches, study them carefully. Are the figures well proportioned? Are the houses drawn in satisfactory perspective? Is the landscape appropriate to the country it represents? Does the whole composition fit together well?

When you have selected the sketch that you think is best, you are ready to enlarge it so that it will fit the large wall space. You can enlarge your picture by using squares, as follows: Divide the small sketch into squares. Then divide a larger piece of paper into the same number of squares, to correspond exactly with the small squares drawn on the sketch. Now you may begin sketching your work on the large paper, following the squares on the small one.

When all the sketches have been enlarged, pin them together so that you can see the work as a whole. In what order should they be placed? You might start with the countries of our own continent, placing the United States first, then our nearest neighbors, the South American countries, then the European countries, followed by the Asiatic and African countries.

Do the various panels hold together well? Are there empty spaces? Any that appear to be too crowded? What type of border, if any, should there be? Remember that the plainer the border the less it will detract from the work itself. The sketches as a whole are ready to be traced on the large cloth, Homosote, board, or paper for the finished mural.

You have now come to the most important part of the mural, the color. Do you want to paint every object as it really is, or select certain harmonizing colors and then try to use them more or less frequently throughout the mural? Reference to the work of some well-known muralists will

show how they handled their problem. You may notice that their murals do not appear to be spotted with many patches of colors, but are held together by a few well-chosen, harmonizing hues. Choose your colors intelligently, keeping this point in mind.

7. *Location and Art Products*

In our investigation of art and space we have learned that climate and other conditions have a potent effect on art, causing people to use different raw materials, and consequently to wear different types of clothing, travel in different ways, live in different kinds of houses, and even to paint and model in different ways. Through the designing and painting of the mural we have tried to show the clothing, houses, means of transportation, scenery, and maps of countries in various parts of the world.

8. *Possible Outline of Experiences*

General Information: Physical conditions of other countries: types of homes, clothing, food—Sahara Desert, Alps—Art of various countries: weaving, pottery, dyeing—National costumes: north, heavy furs; Japan, silk; England, wool—Materials for clothing: England, sheep (wool), Japan (silk), north (furs)—United States: climate, products, transportation—Animals used for transportation: horse, ox, donkey, elephant—Architecture—Paintings—American painters and sculptors: life, methods.

Technical Information: Treating materials before becoming products of art: wood, marble, clay, wool, cotton, silk—Furniture, pottery, glass, textiles—Process of weaving—Building materials in different localities—Studying perspective drawing—Studying proportions of human figure—Perspective drawing of a house: size of rooms, windows, doors, roof—Composition: center of interest, proportion of figures to surroundings—Enlarging drawing by means of squares—Studying color, harmonizing hues, mixing paints.

Directed Activity: Visiting museums—Art of other countries—Studying different types of houses in different lands: Eskimo, African, Indian—School exhibit comparing other countries with United States; homes, clothing, transportation—Poster showing transportation of various countries—Collection of pictures of streamline airplanes, trains, boats, including snapshots—Collection of American works of art in the form of prints of sculptures, buildings, and paintings including murals.

Creative Activity: Original drawings of scenes in other countries—Original drawings of human figure in action—Memory drawings of houses of other countries and United States—Illustrations of transportation, showing development of streamline design—Construction of a living room on a small scale, with furniture, floor coverings—Individual exhibit made in connection with the unit—Illustrations in oil, crayon, water color, or charcoal—Cartoons for mural—Mural painting.

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Chapter XIX

Civic Art

The city of Florence has been referred to by writers on the history of art as the city that art built, but even Florence was not beautiful as a whole. It remained for later generations to build cities designed to meet more adequately the needs of their inhabitants. Since ancient times, industrial, commercial, and economic conditions have encouraged the concentration of populations in cities. Although beauty has not always been the aim of the city builders of modern times, beauty has in many instances been the result of the planning. The zoning laws of New York City, for example, not only have set aside certain districts as residential, industrial, and commercial, but, through their careful provisions for light and air, they have brought about beautiful new forms in architecture. If the city of today is to be regarded as a forerunner of the city of tomorrow, we may look forward with considerable confidence to the early prevalence of the city beautiful. One important aim of art education is to acquaint boys and girls with the experiments in community planning and to provide experiences

in school which will lead to the planning of better towns and cities.

How are communities planned? What makes some towns more attractive than others? How may we use our art influence to improve the appearance of the place in which we live? What can we do to develop a civic art consciousness?

James P. Haney, late director of art education in New York City, once called attention to the value of art teaching to the community in the following words: "There is a civic value in art teaching. One cannot raise standards of taste without raising standards of appreciation. The man or woman who strives to make his house better takes pride in having his town made better. Every civic booster knows that there is nothing which stimulates interest and pride of citizens more than a consciousness of the growing beauty of the town in which they live."

That we may have a clear understanding of civic art, let us at the outset begin by defining the term as art pertaining to the citizen, citizen art, first considering those aspects of art which are or should be of interest to every citizen. One authority on city planning says, "An urban region consists of buildings, and all else in its physical structure relates to the use, arrangement and design of buildings." If this be true, then the buildings of a community are of primary importance and should perhaps be considered first. Ways of communication are all closely related to buildings and their uses. Railways have buildings to accommodate passengers and freight. Highways and streets are necessary to afford means of circulation between buildings; they provide access to all parts of a community.

1. *Homes*

Children of the crowded city often grow up without any close contact with nature except what they get from their

(*Courtesy of Farm Security Administration, Washington, D. C.*)

Greenbelt, Md., is surrounded by the open country, and transportation is provided by through boulevards and intersecting streets. Residences are at the left; school, right center; business, center.

visits to the city parks. Thus, they lose one of the greatest joys of childhood, a place to play with other children out of doors. In an investigation made of a tenement district in one of our largest cities it was found that 83 per cent of the people of the neighborhood were living in places unfit for human habitation; one-half the families shared a bathroom with other families; less than half the families had a bathroom available; only 58 per cent had hot water; and only 13 per cent had a central heating plant or furnace. Dark rooms, dampness, lack of repair, and other unsatisfactory conditions were the rule throughout this district.

The main reason for such bad housing conditions has been low wages. Because of this, many families have been unable to pay rents sufficient to provide an adequate home. Provision is now being made through the government for cheaper and better houses, in the form of apartment houses which have good sanitary and lighting facilities, wider distribution of window space, correct ventilation, proper heating, and small open spaces or courtyards. Through generous government loans it is now possible for many more people to buy or build homes for themselves.

Democracy must by its very essence be dynamic—progressive. It must exist as a changing, growing society which is devoted to certain great principles of life, conduct, and personality advancement. There is no time in any democratic society when a static acceptance of and reliance upon traditional forms and past achievements can be tolerated. Our present generation faces the stringent commitment of proving valid the democratic way of life and of making it operable under present conditions. We have, to quote President Roosevelt, "a rendezvous with destiny." A stupendous crisis engulfs the earth. It threatens to destroy our heritage of common justice, freedom, and ideals. It is that same heritage won painfully by men who differed in nationality, race, religion, and political belief but who held alike in unswerving democratic faith, which has for generations given significance to

our nation. We are being challenged today to initiate a program of bold and vigorous action, to revitalize our profession of faith in those principles which place emphasis on the "primacy of human values"; which stress the welfare of the social group; which foster mutual and free consultation and a method of individual, group reconciliation; which promote the processes of free discussion and group decision and which prize the integrity of intelligent action.[1]

Community neighborhood interests should be recognized in all community planning. In other words, there should be through alleys, broad streets, and generous dooryards. Tenants should not only think of their own homes but also of those of their neighbors; they should cooperate in caring for and in maintaining the community as a whole. The basis for improvement of an overcrowded community rests with all the people living in it.

Buildings which face the main highway should be in harmony with their surroundings, and they need not be ugly to be useful. Advertising billboards should be eliminated from residential neighborhoods, for many of them cause unsafe traveling conditions, and the beauty of the natural landscape is obstructed by them. Streets should be paved with concrete and macadam, and adequate alleys or lanes should be provided.

2. *Parks and Gardens*

Recreation spaces should be placed in convenient relation to the buildings in a community. Most large cities suffer from the lack of recreation spaces sufficient to take care of the large number of buildings. There is probably no modern city where the streets and parks are so distributed that they can be said to be well balanced in relation to the buildings. Restrictions, then, should be placed on the

[1] Glace, M. F. S., *The Art Teacher and the Changing Order*, National Education Association, Department of Art Education Bulletin, Vol. VI, 1940.

size and form of buildings in relation to the spaces available for light, air, and means of access. The purposes to be served by the buildings should also be considered in relation to their location.

Whether we live in the open country or in a crowded city, we should all be interested in the subject of gardens and parks. Even if we do not ourselves go to the public parks and gardens, we should be enthusiastic about them and should see to it that our own dooryards are kept clean and beautiful in appearance.

Most people undoubtedly appreciate nature more than they do art, and less instruction is needed to make them have regard to agreeableness of nature in their surroundings than to get them to see and understand architecture, the art of building, or even landscaping.

A Roman proprietor of ancient days prized above everything else the pleasure to the eye afforded by his estate. The appearance of his home mattered greatly to him, but he would not have been satisfied if there had not been a neat-looking garden containing flower beds, trees, well-trimmed boxwood hedges, and well-kept roadways. In the seventeenth century the French king, Louis XIV, ordered a royal garden made at one of his palaces. It was to be the most beautiful garden in existence, with an amphitheater, a great pond, many fountains, sculptures, vases, and other beautiful things. To this day his royal garden is one of the show places of France, although numerous changes have been made in it by more recent governments. The garden referred to is that of the Palace of Versailles, not far from the city of Paris.

In our own country, Mount Vernon, in Virginia, the home of George Washington, near Washington, D.C., has ever since its erection appealed to people because of its fine gardens, which are works of art no less than works of nature. Yellowstone National Park with its lakes, moun-

tains, waterfalls, and wildlife probably represents the natural American landscape at its best, modified but slightly by the hands of man.

Although we may not expect to have as spectacular and wonderful arrangements in gardens and parks as those mentioned, we should aim to do our best with the little we may have to do with. We can keep our lawns mowed, our hedges trimmed, our leaves raked up. If we do not have a lawn to maintain, we can at least aid in preserving the beauty of the community by helping to keep it free from scattered paper and other litter.

3. *Creative Activities*

The young citizen's concept of civic art should embrace all that aesthetic interaction with others in the environment would seem to imply, cooperation in care and maintenance and in planning and executing. An activity which may be carried on to include all these considerations is the planning and executing of a model community, model in two senses: for it will be an ideal community carried out in miniature, to scale.

4. *Scale in Design*

When young children play with dolls and other toys, unknowingly they think in terms of scale. They not only think of the toys as being full size, but sometimes they even think life into them. A man who would draw a plan for a building or a community must likewise become "scale conscious," as he plays with the various elements that go to make up his design. Instead of drawing plans actual size, he will reduce them to scale, perhaps $\frac{1}{8}$ inch to the foot. For our models, it might be better to use $\frac{1}{4}$ inch to equal a foot.

A building is a creation of masses, colors, and textures, all of which the architect must, of necessity, represent in

his plans and elevations by mere lines. A beginner in the designing of buildings must be cautioned against the overemphasis of the lines in his thinking, with a resulting neglect of the important considerations of form and color. He must keep constantly in mind the relation of the finished building to the land around it. There should be unity and harmony in the whole design, including the building and the grounds. In planning our model community, we shall not confine ourselves to the conventional plan and elevation type of drawing but shall be free to use realistic or working sketches as desired. The final plans, whether freehand or with instruments, should, however, be made to scale.

5. *Pencil and Brush Techniques*

The pencil is a suitable medium of expression. When the pencil is properly sharpened, almost any width of stroke may be made to give a variety of line and tone. The pencil is an excellent medium for showing such materials as wood, brick, and stone. All types of strokes may be made, fine or broad, depending upon how heavily we bear down on the paper. Objects drawn in pencil look flat unless their surfaces are shaded to make the objects appear in the round. Varied effects may be secured with the pencil by stippling and crosshatching. The former, which is a series of wormlike lines or dots placed close together, is applied to the parts where shade is desired. The latter is produced by placing one series of parallel lines diagonally across another series.

Warm colors should be used to balance the cool colors. If the buildings planned are to be used together to form a neighborhood, there should be a balanced arrangement of all the buildings in our community model. Color gradations are made by filling the brush with the desired color, at first using the pigment with little water. Each time the brush is passed over an area of the paper, more water should

be added, until there is only a tint of the original color left. The paper may be used dry or it may be stretched on a board and given a preliminary wash of clear water. It will be found that some papers take the color better than others. In painting broad horizontal surfaces, the brush, full of paint, should be drawn all the way across the paper from left to right or right to left; then another brushful of color is applied immediately below this and so on. There should be no scrubbing, and all strokes should be free. Each time a different color is used, the brush should be rinsed in water. Water-color boxes should be washed thoroughly inside and out and wiped dry after using and the brush washed and placed in a glass, handle down, to dry.

6. *A Model of the Ideal Community*

Lantern slides help to make unfamiliar subject matter real and interesting. Plans of such gardens as those of the Alhambra in Spain, of Versailles in France, and of Mount Vernon in Virginia will be shown. After looking at and studying these gardens, we shall be better prepared to judge what features are good and what are not so good in a residential or a community garden. Whenever we visit a park or a newly laid-out residential section, let us keep in mind the neighborhood we are planning and carrying out in materials.

After the most suitable plan has been decided on by the class, the color and appropriateness of materials for drawing and constructing it must be carefully considered. To follow the plans once they have been worked out on paper is, of course, a relatively simple matter. If the plans are made well, the actual construction of the project should take a relatively short time; indeed, the making of plans and their execution may be and probably should be carried on at the same time. A platform of wood, approximately

½ inch thick, will serve as a foundation for the model. Green felt might be used to represent grass. Various lengths and widths of rubber sponge or of Celotex painted green might serve for the shrubbery, and hedges, if it is desired to have them. Ordinary sponge might also be effective. It is well to experiment with various materials for this and other purposes. Such trees as maple and elm may be made by puncturing a piece of sponge or other material with a small sharp-pointed stick to serve as a trunk. The only heavy tools needed for carrying out the problem are a saw and a hammer. The wood from which the small buildings are to be made need not be more than ¼ inch in thickness. Long, full strokes should be used in sawing. When driving a nail, the hammer handle should be held near the end so as to make a right angle with the nail being driven, and the blow should come from directly above the head of nail instead of from the side. If it is not convenient to use woodworking tools, heavy paper or pasteboard may be used instead. Then glue would take the place of nails.

The procedure followed in carrying on this unit of teaching would involve the stages of orientation, design, forming products, and appreciation. The plan of the community is laid out on foundation board and then the buildings and landscaping are put in place on this as they develop. The various objects are painted and otherwise finished as they are placed. Great freedom is exercised in deciding what shall be included, how these things shall be treated, and how they shall be arranged on the foundation board.

7. *Citizen Art*

Civic art is art that concerns a citizen and his community, his home and the land around his home, whether he lives in the country or in the city. Citizen art implies an interest also in public gardens and in parks. We should take full

advantage of our public parks. Better homes are needed to make more desirable neighborhoods. Community interests should be recognized and fostered. Air and sunshine are free to all, and all should know how to take advantage of them in community planning.

If we are to retain our present democratic form of government in the United States, many children must be given a better chance to grow up than they now have, they must be made strong and fit to take the responsibility which will later devolve on them as citizens. To achieve this end, we must educate our people, young and old alike, to demand better places to play, places where children can be influenced by nature under wholesome conditions that lead to art as a better way of living in a democracy.

8. *Possible Outline of Experiences*

General Information: Civic art: pertaining to citizen, buildings, their arrangement and design—Restrictions on buildings in relation to light, air, means of access—Purpose of building in relation to location—Tenements: dark rooms, dampness, lack of repair—Low wages the reason—Cheaper housing provided by government: good lighting, window space, ventilation, heating, sanitation, open spaces, courtyard—Neighborhood interests: through alleys, broad streets, generous doorways—Tenant cooperation in care for community.

Technical Information: Pencil: suitable medium of expression; can be used to show wood, brick, stone; must be properly sharpened, properly used—Shading: (1) stippling, wormlike lines or dots close together where shade is desired; (2) crosshatching, series of parallel lines diagonally across another series—Brush techniques: color gradations; paper may be wet or dry—Applied color: long strokes, one below other—no scrubbing.

Directed Activity: Slides of good garden arrangements—Visiting park and residential sections of community—Proportions, or scale, of design; finished plans: $\frac{1}{8}$ inch equals 1 foot; model: $\frac{1}{4}$ inch equals 1 foot—Cautions: Overemphasis of lines means

neglect of form and color; relation of finished building to surrounding land; unity and harmony of whole design; warm colors balance cool.

Creative Activity: Model of ideal community: layout of streets, placing of buildings, freehand plans and elevations, models in clay, paper, or other material, trees, bushes, lights, hydrants, mailboxes, assembling and finishing.

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Appendix A

Art Mediums and Techniques

1. *Drawing and Painting*

If properly stimulated and guided, pupil experience will inevitably result in art expression. While a unit of experience is in progress, the teacher should make clear to the class the various visual aspects of the unit which are essential to an understanding of it and which have a bearing on the creative expression growing out of it.

Drawings or paintings that are the culmination of experiences of pupils should be creative; they should be the free and individual expressions of the students who produce them, neither the subject matter nor the technique having been imposed by the teacher. This does not mean that the foundation for such expression should not be carefully laid by the teacher in advance of the process of creation. It does mean that to be creative the pictures must not be copied from books or from other sources.

Such a background of experience can readily be provided through the preliminary showing of illustrative material such as objects and prints and the use of dramatization and

class discussion. Class visits to institutions and localities where significant art objects are to be seen and firsthand experience acquired are also desirable. Pupils might, under certain conditions, be taken on an excursion to a neighboring store, factory, or public building, to the art, science, or history museum, or to the public library. Sometimes they should be encouraged to make such visits individually rather than as members of a group. This vital pupil experience should, under effective teaching, grow into appropriate graphic expression.

In order to facilitate the process of generating creative expression, the teacher may help the pupils to recall and talk about their experiences, and sometimes to describe minutely the objects and episodes that interest them most. As the themes are presented, the teacher may well make on the blackboard a list of the various topics suggested. Each theme may then be discussed according to its inspirational possibilities.

Before beginning work on his drawing or painting, each pupil should decide on a theme. The list of themes compiled by the class should be found helpful to the pupil in deciding on a title for his picture. The final choice of theme should, however, be left entirely to the individual child, even if it does not relate to the unit of teaching in progress at the time. The actual carrying out of an illustration should be left to the individual child, unless he asks for help which the teacher is able to give. The discussion of art principles, such as those relating to composition, color, and representation, should generally be left until the evaluation or appreciation period at the end of the lesson.

2. *Representation*[1]

In the early stages of his experience, it is often advisable to let the child seek his own method of representation

[1] Arthur Thurman, art teacher at Patterson Park High School, Baltimore, Md.

rather than to have him follow any imposed technique. Young children have a natural tendency to simplify visual material to such an extent that they need to employ no intricate processes of perspective or shading to convey an idea. And as they gain in experience they will develop a natural need for more elaborate ways of expressing ideas that are correspondingly more complicated. It is important that the need for instruction should precede its being given.

Visualization. In carrying on the type of drawing that attempts to represent actual things as seen, the emphasis in teaching can well be placed on learning to see. It is training in observation that results in increased drawing ability. One excellent means of training observation is by memory drawing. Assign some subject familiar to the students—some part of their home, for example—and ask them to observe and remember details of what they see, contours of particular objects, relative sizes of parts. Word descriptions by students preceding drawing will often help make the mental images clearer.

Perception. Drawing from posed objects is a more direct way of training observation, but one that necessarily tends to limit visual material to that which can be brought into the classroom. Outdoor scenes can be approached by sketching trips outside the school. If this is not practicable, photographic material can be used as a basis for creative work in the classroom. The photographs should not serve as models to copy from, but as inspirational material to stimulate creative effort.

One of the chief problems confronting the student of representational drawing is that of conveying the impression of three dimensions on a two-dimensional surface. The appearance of a distance going back into the picture is attained by the optical illusion of perspective. Various means are used to give this appearance of depth, or third dimension:

Objects, in order to appear farther back in the picture, are drawn smaller in size.

To appear farther back, objects are placed higher in the picture.

Objects in the distance are made to appear less distinct (lighter in value, duller in chroma, or intensity).

Appreciation. A review at the end of a lesson, affording the students an opportunity to see each other's work, is helpful. Each student should have a chance to evaluate his own efforts as compared with class accomplishment as a whole.

A classroom lesson in representation needs material from which to work. It must use actual materials (objects), pictures (photographs), or remembered images (imagined patterns). Practice in observation from these three approaches, with technical instruction in perspective, the means of showing form by the use of dark and light, should be sufficient as a background for the student to find his own way.

3. *Figure Drawing*

In figure-drawing lessons, the idea to be expressed should be stressed rather than the drawing of the figure as such. The teacher should endeavor to make drawing as easy as possible for the students by imposing only such restrictions as are absolutely necessary for carrying out the problem at hand. The manikin, or lay figure, made of wood or cut from paper is often a means to an end, the end being use of the human figure in expressing an idea. Manikins not only help the student to visualize proportion and action, but they also help to stimulate interest in the figure and to hold it during the period necessary for drawing. In all lessons where the making of a drawing is undertaken, a theme or subject for composition should be decided on by each member of the class before he begins to draw. It is

probably better seldom to have figure-drawing lessons as such, but rather to use figure drawing as occasion demands in connection with creative problems.

Strictly accurate reproduction is not a primary aim in teaching children to draw the human figure. The expression of the child's own feeling for a certain activity is a much more important goal.

Visualization. Before he starts to draw, the child should analyze the position of the figure he is going to represent. How would he stand if he were engaged in that activity? Would he stand erect, lean forward, sway sideways? Would his legs be bent or stiff? Would his arms hang loose at his sides or hug his body? Would he thrust his chin forward or protect it behind a hunched-up shoulder? The child who is keenly interested in the activity he is about to illustrate will be able to make this analysis. His interest will make him sensitive to the mood of the subject he is to draw and will help him express that mood with every stroke of the pencil. Only when the child is thoroughly saturated, so to speak, with feeling for his subject should he start to draw.

Drawing. His first step in drawing the figure should be to make one long sweeping line, the full height of the figure, to express the main action of the figure. This line should serve as the skeleton on which the figure will be built. It should contain as much feeling for the subject as the finished drawing will express. A point placed halfway between the two ends of this line will indicate roughly where the legs should join the body. Here again the child's knowledge of the subject will be invaluable. He knows the answer to the questions: Should the legs be bent? Should they be wide apart or close together? The same fact holds good in regard to the position of the arms and the head. The child feels the activity and can express it because it is familiar to him.

The picture up to this point should be the simplest kind of sketch, mere lines being used to indicate the arms, legs, and torso, and a simple oval for the head, but they will have been put together in such a way as to form a harmonious whole which expresses a definite feeling for a certain activity.

Now the child is ready to build on this framework. At this point he can use himself or his classmates as models to get the proper swell of muscles and the relative widths and lengths of the parts of the body. He will discover by looking at another boy that the shoulders are wider than the waist—that a person turned sideways shows only one arm—that the chin is sometimes higher, sometimes lower than the shoulder.

Expressive Line. The child should keep in mind at all times the general attitude of the figure that he is representing. If the figure is tense and forceful, every stroke of the pencil should be made with that fact in mind. If the figure droops with weariness or dances lightly, that idea should be uppermost in the mind of the child during the whole process of drawing.

4. *Drawing Trees*[1]

Related Science. The prime factor of tree drawing is, I believe, the absolute necessity of correlation between art and science. Tree drawing should begin with the study of the actual trees. It is best not to develop a standard form of tree which a child would invariably use whenever he wished a tree in his composition because trees themselves are easily recognized as to their species and a sketched tree should be easy to recognize and to name. The science course of study requires the study of definite trees at each season, and sketching can easily be facilitated at these times with help from the science class.

[1] Doris Henkelman, teacher, the Roland Park School, Baltimore, Md.

Observation and Sketching. Since the children begin the drawing of the tree with the skeleton, that is, the trunk and branches, it is best to begin to sketch them in the late fall, winter, or early spring, when there is little or no foliage.

The trunk, except at the ground, is of equal thickness throughout its length until it gives forth a bough. Its next length is again even until the next bough. When a trunk divides, the limbs at the fork measure more in diameter than the trunk below. Trees hanging over a bank would often appear unbalanced if it were not for the projecting roots that grip the bank surface.

Another important thing to observe about the tree is the way it grows out of the ground. There is a sense of upward movement about all tree forms which can be noticed at the bole where the tree comes out of the ground. It is thicker, with part of the roots showing. Think of this upward movement as you are drawing and draw from the ground upward. One way of having children achieve this is to have them start from under the ground line and draw a line upward the full length of the tree and start each time from the bottom up, adding lines to thicken the trunk and then have them turn off into branches, then into twigs, all the while the trunk is getting thicker as are the branches as twigs are added. This will make the trunk in proportion to all branches and twigs. Still another way to gain this upward feeling and also give balance and sturdiness to the tree is to show some of the roots above the ground, which will serve for a sort of stand. If the bole is embedded in soil, the tree seems not to be springing from the ground but to be pushed down in it.

Do not scribble in the branches in any fashion. Make a careful choice of a few and draw them accurately. Five or six is enough. Notice, too, how the branches seem to come out of one another and out of the main trunk. There is often a swelling which seems to solder one to the other.

Remember also that not many branches will come exactly sideways out of the trunk but some are going away and some coming toward you. Also, be careful to indicate by your drawing which way or in which direction the trunk is growing. On sloping ground, the trunks often lean slightly to the high side and look best so.

As with drawing the rest of the tree, the foliage requires careful observation of the model. Draw just what you see. Do not try to make foliage look realistic. Look for the silhouette seen against the sky and for large and small distinct and indistinct shapes. A distant tree is rendered flat by the atmosphere, the main shape is confused by any detail of foliage. Force yourself to see the light side and the shadow side and draw exactly the boundary between the two. Try to balance the light and dark in the foliage. This can often be achieved by a diagonal division of light and dark.

Suggested Procedure. When making a composition of trees, a good plan for stressing arrangement is to use a number of toy trees, arranging them until they look best, and then sketch the toy trees. It is a good plan always, when drawing, to sketch the largest forms first, and this method applies to a row of trees. Draw the space between the trees first, then redraw the trunks left between.

Whether sketching in pencil, crayon, chalk, or ink and paint, sketch the skeleton first and then fill in foliage with light and shadow spaces. Use a real tree for a model or a photograph of a real one so that the kind of tree will be evident. This will give training in seeing what to draw and in drawing what is seen.

5. *Painting with Transparent Water Colors*

Most children like to play with paints, and they should be encouraged to use this medium as well as pencil and crayon whenever the opportunity arises. The following sugges-

tions should be useful to the teacher who would undertake to do more with this desirable form of art activity.

A hard-pressed, rough-surfaced paper is generally best for water-color work. Paper may be had in rough, medium, and smooth surface. When paint in the form of cakes, either hard or semimoist, is used, water-color brushes that come to a point are generally preferable to flat brushes. Each cake should first be moistened with a drop of clean water. After wetting the brush, it should be gently stroked across the cake in order to lift the color; it should never be scrubbed over the cake. When not mixed in the brush, colors may be mixed in the cover of the water-color box or in a separate shallow dish. Brushes should be rinsed in water each time a different color is used.

The more water that is mixed with a color the lighter its value will become, and the weaker will be its strength, intensity, or chroma; the less water that is used the darker and stronger will be the color. Colors should not be mixed any more than is necessary as this tends to reduce their freshness. For most kinds of painting it is better to mix the colors in the brush itself than in a dish or pan.

The paper used for water-color painting may be left dry or it may be stretched on a frame and given a preliminary wash of clear water; in either case the brush should be kept full of water. In painting broad horizontal surfaces, such as sky or water, the brush, full of paint, should first be drawn all the way across the paper. Then another brushful is applied below this, and so on until the required surface is completely covered. Each time the brush is dipped into the paint the color should be allowed to flow on the paper directly; there should be no scrubbing over the once-painted surfaces with a partially dry brush, as this is injurious to both the paper and the brush.

If liquid water-color pigment is used, the brush should be dipped into it only about halfway up the bristles. It is

important to have a vessel of clean water on hand at all times so that the water in the small pans or jars may be changed frequently and the brushes kept clean.

Brushes and paintboxes should be carefully cleaned before being put away at the close of the lesson, the brushes washed carefully and placed in a receptacle to dry, with handles down. Brushes should never be placed under a faucet for washing nor should they be wiped. When paint cakes become soiled with different colors from the brushes, they should be lightly washed with a brush dipped in clean water. The covers of the paintboxes should be washed thoroughly inside and out with a wet cloth, then wiped dry. Paintboxes should be kept clean when not in use. After cleaning they should be put away in a covered wooden or pasteboard box.

Suggestions. If possible, it is better to have the paper slightly tilted so that color may flow downward gradually. Begin at the top of the picture and paint downward. Rinse brush in water before changing a color. Work with a flowing brush. If you require another wash of color over the first, see that the first wash is dry before the second application. Do not lap one color over another until the first color is dry, before spreading the color on a picture. Experiment first on another piece of paper to see if you have the right color.

6. *Painting with Oil Colors*[1]

Oil paint is another medium most interesting to pupils. This may be used on textiles, cardboard, and canvas. The ordinary cardboard, bookbinder's board preferred, may be first given a coat of white paint or shellac. The oil colors are then placed on a palette or a piece of glass; a small portion of each, in order, ranging from the light

[1] Nora Brainard, art teacher, Forest Park High School, Baltimore, Md.

to the dark colors. A small pan of turpentine should be on hand as well as oil brushes of several sizes.

The design may be drawn on the board, canvas, or textile, which is stretched on a frame and fastened with thumbtacks. Then the process of painting is carried on. At the end of the period the painting is placed where it can dry, and it can be painted again the next time if not completed. Paintbrushes should never be put away without being thoroughly cleaned with turpentine and warm, soapy lather. These brushes should then be placed in a container with the bristles up. The glass or palette may be cleaned with turpentine after scraping off with a knife all the mixed paint that can be used at the next lesson.

Brushes that have been used for painting with oil pigment should first be swirled about in kerosene or turpentine, and then cleansed thoroughly with soapy lather and, if possible, hot water. If a number of brushes are placed in a jar to dry, the bristle or sable end should be up. The brush must not be allowed to come in contact with the bottom of the receptacle.

7. *Silhouette Printing*[1]

The reproduction of certain forms for use in design, as well as for keeping a record, is important not only in art but also in other subjects. In science, it is often desirable to reproduce natural forms such as of leaves or small plants. This may be accomplished through the various forms of printing discussed in the paragraphs that follow.

Spatter Printing. The following directions will enable the teacher to make clear the processes necessary to reproduce the shape of a silhouette by means of spatter: (1) Be sure all objects are flat, to ensure sharp definition to prints. (2) Lay silhouette (or silhouettes, if there are to be more than one) on paper where print is desired. (3) Use a small,

[1] Charles C. Meigs, teacher, School No. 28, Baltimore, Md.

stiff brush such as a toothbrush, and dip in ink or paint solution. Solutions of ink thinned out with water or thin solutions of white or colored show-card paint are used. (4) Rub brush over wire screening, which is held about 2 inches above the paper. Color will spatter on sheets evenly. It should be heaviest just at margin of silhouette for best effect, and grade out faintly to edge of paper. (5) Striking results are to be obtained by using contrasting color schemes.

Blueprinting. Obtain roll of blueprint paper from stationery or draftman's supply house. The paper being light sensitive, it must be kept in lightproof box. The print is made by placing silhouettes to be printed from on a piece of blueprint paper about 6 by 8 inches and covering with a sheet of window glass. Glass is essential to ensure close contact between objects and the paper. The concave, or curled-up side of the paper, is always the sensitive side. It is a pale yellowish-cream color, and turns a deep blue upon exposure to light. It is convenient to use a picture frame or a regular photograph printing frame such as is sold in photographic supply houses. Do not try to use artificial light, as the blueprint paper is sensitive to strong sunlight. Expose for several minutes, until blue color is noticeable. Blueprint paper may be fixed by washing in ordinary water.

The methods of silhouette printing described are used in the making of nonobjective compositions, called "photograms," in which boys and girls often take great delight.

8. *Lettering*

Lettering may well be introduced by means of a demonstration, the teacher being followed line by line by the class. Lines should be drawn on the blackboard to correspond with those on the paper.

The first letters made should be capitals and they should be one space high. It should be explained that the lower half of many of the letters is made to appear heavier than the upper half because, if this were not done, the upper spaces would seem too heavy.[1]

How to Letter with Pens. The Gothic alphabet is one in which the letters have no serifs. Being simplest, it is best for beginners to use. All its elements are of uniform thickness. The beginner should practice on smooth paper or cardboard at first, ruling three guide lines about ¼ inch apart for each line of lettering. Cross-section or "squared" paper is satisfactory for this purpose. At first, use a Speedball B-1 pen and black, free-flowing India ink, filling your pen with the special filler provided for the purpose.

Position for Lettering. Hold the pen like a pencil, keeping its marking tip flat on the paper while making each stroke. Work on desk or other slightly slanting surface, holding the paper down with the left hand. Sit erect and close to the desk.

Practice of Lettering. Lettering should be done with a full arm movement, an even pressure being maintained on the pen. The letterer should rest an instant at the finish of each stroke before lifting his pen. This ensures a sharper stroke. He should start with the vertical (downward) strokes and then proceed to the horizontal (left to right) strokes, and then to the oblique strokes (left to right and right to left), and finally he should try combinations in the order of H, L, F, E, N, M, V, A, W, I, Y, and Z. When he can make these fairly uniform he should proceed to the

[1] The series of six lettering charts, contained in *Art Education Charts*, published by Warwick and York, Baltimore, Md., 1930, contains the following plates, which cover the field in a general way: Block Letters, Single-line Capitals, Single-line Lower-case Letters, Boldface Capitals, Boldface Lower-case Letters, and Letters Used by Draftsmen. Manuscript Lettering is treated in an elementary way in *Manuscript Writing* by Marjorie Wise, published by Charles Scribner's Sons, New York, 1924.

letters with circular parts. He may start with a few lines of half circles, making them to the left, then to the right, carrying each stroke well past the center. Now he can combine these two, completing the circle, or letter O, with the overlaps showing.

Exercises with circular strokes starting first left, then right, will be found helpful in developing a free arm swing. These should be followed by practice in making the circular letters, G, D, P, B, R, Q, and S, until the entire alphabet has been included. More than a half circle should never be made at one stroke: G will require 4 strokes. Different word combinations and sentences should be practiced until facility is acquired.

Suggestions for the Letterer. Work with an even stroke and do not be in too great a hurry. Save time by studying the form and construction of each letter before you start. First draw out the strokes in their consecutive order using a pencil, and then retrace them with a pen. Note where the elements start and where they stop. Try to complete each of them in a single stroke. If you handle your pen properly, it will not be necessary in inking to retrace the letters. Use smaller pens (B-2, B-3, B-4, and finally B-5) as skill and confidence are acquired. When you can handle the Gothic alphabet with a large pen, practice it with smaller pens.

Study the action of your pen. If it produces ragged work, find out why it does this. Are you holding the pen so that the marking tip does not glide flat over the paper? Are you picking it up before the stroke is complete? There is a tendency at first to use a finger movement which raises the lower side of the marking tip of the pen off the paper before the end of the stroke, producing a ragged line. Keep the pen clean by scrubbing it occasionally with a wet brush. (An old toothbrush will be satisfactory for this purpose.) If the pen's feeder gets sprung, slip a small knife blade under the neck where it joins the pen and pry it up a little, while

holding the tip in contact with the nibs to set it back into position.

9. *Craftwork*

Every normal child is endowed with the impulse to express himself in a material way, and the satisfaction of this impulse demands that he be given an opportunity in school to manipulate a variety of materials constructively. As a result of his school art training, the child's creative experience is to be reconstructed to the end that his taste shall develop. Thus, it devolves upon the teacher to help the child to realize wherein lies appropriateness in the use of materials.

Folding, Pasting, Gluing. Place the paper flat on the desk so that the edge to be folded will be in a horizontal position. The position of the paper should remain the same throughout the folding process. Fold the lower left corner over to the upper left corner and hold fast by pressing down with the fingers. Fold lower right corner over to upper right corner and hold as before. Slide thumbs down to center of fold and crease by pressing them down on paper, moving them slowly sideways, in opposite directions.

In order to keep work clean and free from paste or glue, spread several layers of pieces torn from newspapers over the top of the desk. Mark on surface of paper or pasteboard exact location of piece of paper to be fastened to it.

Pasting will be either all-over surface pasting or edge pasting. Place face down on the newspaper the paper to be fastened on, and apply to it an even thickness of paste or glue.

Adjust the paper to the material to which it is to be fastened.

Instead of pinching the two parts together or rubbing them directly with the fingers, use a piece of newspaper to

protect the work from the hands. Rub on top of this.

As the pieces of newspaper become soiled with paste or glue, they should be crumpled as discarded and be dropped to the floor to prevent their coming in contact with the work, which must be kept clean.

At the close of the lesson, the crumpled pieces of soiled paper are picked up by each child and put in the wastepaper basket.

10. *How to Use Woodcraft Tools*

Crosscut Saw. Sawing across the grain of the wood is called crosscut sawing. The term "crosscut" refers to a handsaw having the teeth filed for cutting across the grain. Sawing may be done on a sawhorse or at a bench. The saw is held in the right hand and guided by the thumb of the left hand, held against the side of it. The cutting edge of the saw should be kept at an acute angle to the surface of the board and the cut started on a back stroke. Gradually increase the stroke to the full length of the saw. The weight of the saw should furnish all the pressure necessary for cutting. The sides of the saw should run at right angles to the surface of the board. The saw kerf should follow the line. If the kerf tends to leave the line, it may be brought back by taking short strokes and gently twisting the blade in the direction it should go. A long even stroke should be used. A short, jerky arm and shoulder movement gives a rough, irregular cut and is tiresome.

Backsaw. Backsawing is practiced on small pieces of material. A straight, smooth cut can be made because the saw has a rigid back, the teeth are small and have little "set." Before cutting a board with the backsaw, the wood is scored entirely around with a sharp pencil or knife point, guided by the try square. The wood is then placed in a vise or on a bench hook and held in position with the left hand. In starting to cut, the saw is guided by the thumb

of the left hand, held against the side of the saw; it is moved backward and forward its full length, touching lightly the back edge of the piece of wood. Gradually the saw is lowered, cutting farther into the wood until the kerf extends entirely across. There should be no material between the kerf and the knife line. Lines drawn down the edges are followed the same as across the surface.

Ripsaw. Sawing with the grain is called ripsawing. A ripsaw has teeth filed with the cutting edge at right angles to the sides of the blade. Material for ripping may be fastened in the vise or placed on the sawhorse. The latter method is better for large stock. The ripsaw is used similarly to the crosscut saw. If the saw binds in the wood, a small wedge is driven into the kerf back of the saw. In careful work, when ripping stock, allowance must be made for planing to the line after the wood has been sawed.

Coping Saw. The coping saw is used to cut curves in small pieces of thin wood. Coping-saw blades are highly tempered and fragile, so care has to be exercised in using them. Coping-saw work is done with the wood resting horizontally on the bench and held down with the left hand. The blade should be put in the frame with the teeth points toward the saw handle. The saw blade is held perpendicular to the material. Slight pressure is applied and the cut made with the entire length of the blade.

Plane. The plane bit, as the cutting part of the plane is called, is ground straight across with the corners slightly rounded. In adjusting the plane bit, the fingers should not be passed over the bottom of the plane. The plane should be held up with the left hand and sighted along the bottom from the toe end until the proper adjustment is made. The fingers of the right hand are used to make the adjustments. By means of the lateral adjusting lever, the plane bit may be extended evenly through the mouth. The cap iron used to break the shaving can be

moved back from or close to the cutting edge of the plane bit, depending upon the kind of wood and the thickness of the shaving desired. To secure a smooth cut, the grain of wood must be followed. In planing, a firm, steady downward and forward pressure is used. As the plane enters on a board, the most weight should be upon the toe of the plane; and at the end of the stroke, as it leaves the board, most of the weight should be upon the heel. This keeps the surface true. The plane should be held firmly and not allowed to jump or chatter. In bringing the plane back for a new cut, it should be lifted so that the bit will not be dulled.

Chisel. There are two methods of cutting with the chisel, the straight cut and the shearing cut. The latter cut requires less force than the straight cut and more delicate work can be done by this method. In it the chisel is moved forward with its cutting edge at an angle to the direction of the cut. To pare a surface flat and smooth, the chisel is held so that the flat side next to the wood acts as a guide. The chisel should be used with the bevel next to the wood when a quantity of shavings is to be cut away quickly. The cutting edge should be sharp and care exercised to leave the surface smooth. No mallet is used in paring with the grain, and no force is needed other than that exerted by the hands.

More force is required to cut the fibers of wood when cutting across the grain. The work should be clamped in a vise, leaving both hands free to use the chisel. Thin cuts should be taken alternately from each edge of the piece. The chisel is held in the same manner as in paring with the grain, and is pushed directly across the grain.

Gouge. The gouge is a chisel with a curved blade which has been ground to a bevel either on the outside or on the inside. The outside-bevel gouge is used on concave surfaces. The inside-bevel gouge is used on convex surfaces. A gouge should be pushed with the right hand and guided

and manipulated by the left hand, which holds the blade. In delicate work the gouge may be guided by the fingers of the left hand placed across the blade. Long strokes taking thin, even shavings should be used. If the blade is twisted on its axis when pushed forward, this shearing motion will give a smooth cut. In gouging out broad surfaces, the gouge may be used across the grain.

Whetting Edge Tools. During the whetting process, the face of the stone must be clean and plenty of oil used. The blade is held firmly with the right hand and the fingers of the left hand are placed on top of it just above the cutting edge. The whetting is done the entire length of the stone with a backward and forward or circular motion, keeping the angle between blade and stone the same and just high enough to keep the heel of the bevel off the stone. When a fine wire edge appears, the blade is turned over, laid perfectly *flat* upon the stone, and drawn across it to remove the "wire edge." To test for sharpness, the cutting edge is held toward the light.

11. *Wood Carving*[1]

The decoration of wood by carving was practiced in very early times in a crude and simple way with rough tools. This art, with the improvement in tools and skills, has developed with the advance of civilization. The early wood carvers decorated their wooden temples with designs similar to those that had been previously carved in stone. During the Romanesque and Gothic periods, much carving was done on the cathedrals, such as carved doors, beams, and altars. As time advanced, the work improved until it reached its culmination in the Renaissance. Besides carving on churches and temples, much decoration was put on furniture, toys, picture frames, and parts of buildings. The Indians in North America carved totem poles, while

[1] A. Pearl Speir, art teacher, Hamilton Junior High School, Baltimore, Md.

the Mexican Indians carved wooden trays and boxes and later, under Spanish rule, many objects for their churches.

Kinds of Carving Technique. There are several kinds of carving: (1) Chip carving, which consists of cutting out little pieces of wood, mostly triangular in shape, from a background. This may be done with a small skew chisel or a sloyd knife. (2) Incising, or cutting out lines which have been previously drawn on the wood. The grooves cut into the wood form the pattern. (3) Flat surface carving: the pattern remains intact and the spaces around the pattern, or background, are cut out. (4) Relief carving, in which some modeling is given the forms, which are still rather flat. (5) Pierced carving, in which the background is entirely removed. (6) Carving in the round, in which all three dimensions are indicated.

In carving a flat surface: (1) outline the pattern with a V tool along the unbroken lines and curves; (2) cut the short, straight lines and abrupt curves with a gouge or chisel; (3) remove the background with a gouge.

Carving in relief: Same as flat surface, except that the figures are modeled and shaped. Pierced carving: The background is entirely removed. In pierced carving the beauty depends upon the care with which the units of the design are formed. All rough or jagged edges must be removed. Carving in the round: The objects may be shaped on a lathe and by hand, as table legs and plates. Figure carving, or carving in entirety: As animals, birds, or men.

Equipment and Tools. In school, some good work may be done with the sloyd knives and linoleum gouges only. But the following tools would all prove useful: a knife, a straight chisel, a skew chisel, a curved chisel or gouge, with outside bevel, a veining or V chisel, a parting tool, and a good oilstone, several slipstones, and a piece of leather to be dressed with fine emery paste, for stropping.

Woods to Be Used. After the wood carver has selected his tools and equipment, the next selection is the proper wood. Some woods take a good finish, while others do not. Some kinds of wood are brittle and therefore not good for undercutting, while still others may be tough or coarse grained and should be avoided: Applewood—hard, close grained, takes a good finish. Suitable for undercutting and ideal for whittling or carving in the round. Basswood—soft and porous, does not warp or crack. Beech—carves well. Birch—firm, close grained, dark reddish brown, harder than mahogany, hard and excellent for carving. Boxwood—very hard, heavy, nearly white in color, excellent for carving small ornaments (the wood does not grow large). Black cherry—resembles cheaper grades of mahogany, carves well. Ebony, coal black—very heavy, hard, and durable, fine texture, straight grain. Red gum—reddish brown, substituted for mahogany or walnut heartwood, carves well. Maple—excellent for carving, hard, close grained, strong, sought for beauty of the grain. Mahogany—fairly hard, close grained, light reddish, exceedingly beautiful when finished. Oak—hard, enduring, coarse grained, strong; white oak best for carving. Pearwood—best for intricate carving, uniform structure and straight alignment of fibers makes it possible to be carved in any direction. Poplar—inexpensive, takes a good finish. Rosewood—hard, runs in color from a light red to a purplish tinge, figured grain, brittle. Teak—varies in color from straw to a dark brown, hard, and exceedingly durable. Black walnut—hard, beautiful grain and color from light to dark brown.

Carving Processes. After the wood has been selected (have it carefully planed but not sanded, as sanding dulls the tools), draw on the pattern. Now clamp the wood to the desk (standing up to your work gives a better command over it than sitting down). Cut around the edges

of the design with a sharp tool; then gouge out the background. If the figures are to be rounded out, shape them next.

At first try something simple. The most difficult carving is that of animals, birds, and human figures when these subjects are in the round or freestanding. Draw at least two views of the subject on the wood, a front and a side view. Cut the block of wood so that it is about ⅛ inch longer than the size of the finished carving. First draw side view, saw out with a band or coping saw, then draw outline of front, and saw out or chisel. Rough in general shapes and then minor details; then do finishing cuts. Do those parts first which are least likely to be broken off in handling.

If the objects are to be stained or painted, do this after the figures are cut; then rub down with wax or dull varnish. Things that have been carved from basswood with school equipment: book ends (flat or cut out), candlesticks, Katcina dolls, picture frames, decorative panels, telephone screens, totem poles, boxes, and toy animals.

12. *Leathercraft*[1]

To trace the development of leathercraft would be an almost impossible task. Prehistoric man is supposed to have learned the usefulness of leather and people began very early to cut, paint, and use leather for parts of tools, utensils, weapons, shields, and trappings for themselves and their horses. The American Indians and many other early tribes of people made their tents of skins, frequently applying designs to enhance their beauty. The Chinese, who were active in the early development of most of the arts, recognized the artistic possibilities of leather. Painting was done on screens and chests made of thick, flat leather with no tooling. Frequently elaborate boxes were covered

[1] Lena Picker, art teacher, Junior High School No. 46, Baltimore, Md.

with cutout patterns appliquéd in heavy stitching so that the effect was bold in relief even though no modeling was used. The Japanese also made finely painted screens but the art declined after they invented a process of treatment in which paper was used to resemble leather after it was applied to a surface and painted.

Persia, Turkey, Russia, Germany, France, England, Mexico, and America have all contributed splendid examples, each in its own style and treatment. Spain, Morocco, and Italy probably hold foremost place, setting a style that is usually followed today. During the first half of the Renaissance, tooled leather had reached a state of perfection which few mediums have excelled.

Uses of Leather. When books were lettered and illumined by hand, leather was used for the covers. As a result, beautiful bookbinding became an art in itself. The finest skins were used for the purpose. Stamping, embossing, inlaying were used to add a decorative quality. Frequently the designs were studded with bits of gold, brass nails, and precious stones. Wall panels made of whole hides tooled in intricate patterns and color were spliced and used to cover the walls of rooms in palaces and villas. Whole suites of furniture were covered completely with skins highly decorated and polished. The Florentines used a kind of stamping in which a pattern in gold leaf was left on the leather with painted background of dull greens, reds, and blues. The Spaniards used every possible method of decorating and treatment such as inlaying, embossing, gilding, and modeling. Nature was the source of many of the design motifs. Guilds sprang up in many countries and leatherwork as a craft flourished.

Materials to Use. Only the best and most suitable leather for the kind and purpose of the object to be made should be used. Leathers tanned with acids should be avoided, since in time the acid causes the leather to deterio-

rate. Skins without finish or dressing are best, since they absorb water used in softening the leather to make possible the various processes of decoration.

Weight, color, durability, and suitability are determining characteristics which a leather craftsman must study before he attempts to make an object.

Tools and Other Equipment. Necessary tools and equipment are few and inexpensive. An ingenious worker will find many adequate tools lying undiscovered in commonplace objects all about him. An ordinary nutpick properly filed into shape and smoothed down will serve as a lining tool. Stippling may be done with a not too pointed one-penny nail. A piece of discarded marble or glass will serve as the best kind of surface to work on. This hard surface, superior in every way to wood, is almost indispensable.

Preparing the Leather. Choose an unscarred portion of leather larger than the finished article will require. The trimming should be left until all tooling has been done, the allowance being left to take care of stretching and shrinking in wetting the leather to make it pliable. The pattern of the object should first be drafted, allowing sufficient margin all around for fastening to the leather. The decoration is next made and placed on the correct portion of the leather object.

The Decorative Design. The decorative feature not only should be suitable in size and shape to the object for which it has been made, but should fulfill all requirements of good taste and artistic excellence. First lay the leather, slightly dampened, finished side up, on a drawing board. Next thumbtack the pattern on the leather, placing the tacks in that portion allowed for shrinkage. This part is later trimmed off. Trace with a sharply pointed pencil every pencil line, being careful not to tear through the paper and thus mark or otherwise mar the leather. (Tracing cloth

instead of paper is frequently used.) Remove the pattern and find the impression of all lines traced on the moist leather. Go over this outline with the outline tool, aiming to keep all lines of uniform depth and width.

Depressed surfaces making parts of the design stand out in relief are next firmly and carefully pressed down with a modeling tool and this background is stippled with a stippling tool.

Surface Finish. Avoid scarring the beautiful, natural finish of the leather with too sharp and long fingernails or other hard objects. A final, natural finish of waxing and polishing may be obtained after all work is completed and the leather thoroughly dry. For this, ordinary tan shoe polish may be used. Areas of the design may be touched up with specially made leather dyes or thinly diluted oil paint. Avoid using dyes which contain acids. To avoid streaking, apply to the areas to be painted a thin coat of shellac, not thick enough to crack when the leather is folded.

Lacing. There are many forms of lacing, from a simple whipping over and over through holes punched at regular spacings to more complicated arrangements. Here again a good craftsman will have good taste, the determining factor in the finish of his product. Sewing with long stitches on a sewing machine to prevent cutting the leather is a practical finish for articles which will have hard use, such as key rings, purses, belts, table mats, and small book covers.

13. *How to Make a Marionette*[1]

Planning the Marionette. In a marionette to be manipulated by eight strings, first make a rough sketch of the whole figure in order to get the relative proportions of the different parts. Then decide on the height of the marionette; 16 or 18 inches is a good height for a beginning. The head from chin to crown should be $\frac{1}{6}$ of the total height.

[1] S. Frances McGinity, vice principal, School No. 86, Baltimore, Md.

Making a Pattern for the Head. In making the head, the following points should be considered. It might be made of cloth or carved from a block of wood, or molded from plastic wood or papier-mâché. The simplest head is made of cloth. (Cut two circular pieces of unbleached muslin about 3½ inches in diameter. Sew around the circumference about ¼ inch from the edge, leaving a small opening so that the head may be stuffed. With raw cotton *stuff the head as compactly as possible,* then neatly and firmly sew up the opening. The head is now ready for paint and hair.)

A more complex head is made of plastic wood. It is begun by making a stand. (Hammer a nail 4 inches long into the center of a block of wood. Take a lump of modeling clay and begin to model it around the nail. The nail on the board will act as a support for the head. Model the clay into the general egg shape of the head. The small end represents the chin. The large end represents the crown. This egg-shaped lump of clay must be ⅙ of the total height of the figure you are to make. Add clay and shape it to form the neck. Cover the nail completely. The neck will rest on the board; the board will support the head upright and, therefore, make it much easier to work on.) In placing features on the face, draw a light line on the clay to locate the eyebrows, the length of the nose, and the position of the mouth. The eyes are placed halfway between the top of the head and the chin; and the mouth, halfway between the nose and the chin. Place your thumbs below the line of the eyebrows and firmly press down, and out, and up to form the eye sockets. Build up the nose by adding a little clay. With an orange stick as a tool, shape the nose and press it firmly to the head. To form the lips, take two little thin rolls of clay and lay them carefully on the line drawn for the mouth. With the orange stick gently press them into place, shaping them carefully

as you do so. Ears are added in the same way. Place the top of the ears on a line with the eyes. If the cheeks are to be made fuller, add a little clay. Make sure to press it in firmly. When the head is completed, stand off and study it. Study the front view, the right profile, and the left profile. Make any necessary changes with your fingers or the orange stick. The head is now ready and the next step is to make a mold.

Making a Mold for the Head. Begin at the lower end of the neck and insert into the clay little rectangles of tin or very stiff paper about 1 by 1½ inches in size. These little pieces of tin or paper should be inserted about ¾ inch into the head. Allow the rest of the tin or paper to protrude. Continue to place these little rectangles, one overlapping the other, up through the one ear, over the top of the head, and down through the other ear to the end of the neck, directly opposite from where you began. This divides the head into two parts.

When the clay is dry, apply a coat of vaseline to it and to the tin or paper. Now mix about a pint of plaster of Paris with enough water to give it the consistency of thick cream. Apply this mixture to the head. Make sure that the plaster of Paris covers every little part of the head. Keep on applying the mixture until it is about 1 inch thick. Put it aside until it is thoroughly dry. When it has become very hard, pull out the little pieces of tin or paper and you will have two molds.

Casting and Finishing the Head. Cover the inside of molds with liquid soap. Press the plastic wood into every indentation of each of the molds. Fill the molds entirely with the plastic wood. Fit the two molds together and tie them securely. Lay them away to dry for about two days. At the end of that time the molds can be untied and the head lifted out. This will not be difficult, for in the process of drying the head shrinks.

Make any necessary repairs to the head. Fill in all little cracks with plastic wood. Make two little ovals of the plastic wood for eyeballs and carefully press them into place. Allow the added plastic wood to dry, then sandpaper it carefully all over. The head is now complete and ready for paint. You will have to do a great deal of experimenting with the painting of the head. The following tips may help you: exaggerate color and features, avoid using black for shadows and eyelashes; instead, mix strong blue and purple. This will produce a color that is almost black.

Hair can be made by modeling on the clay head before it is cast; or it may be modeled directly on the finished head; or made from yarn, silk, fur, frayed rope, or real hair. In putting the hair on the marionette, use the toe of a stocking for a foundation. On this sew the yarn, silk, or whatever you wish to use. Then glue the finished wig on the head of the marionette.

Making the Body and Other Parts. There are a great many different ways of making a marionette body, and a variety of materials may be used with satisfactory results. The following is a description of a body made of unbleached muslin.

For the chest, cut two pieces of material 4 by 4½ inches; for the hips, two pieces 4 by 3½ inches. Sew firmly around the edge of each, leaving a small opening for stuffing. *Stuff the chest very compactly,* then sew up the opening. The hips must be weighted, therefore place in the sewed pieces for the hips two weights (fishline sinkers), each 2 ounces, then stuff and close the opening. These weights, if correctly placed along the 4-inch side of the hips, will enable the marionette to assume a sitting position.

For the arms, simply use a straight piece of material about 1½ inches wide and 5 inches long. Fold in three parts on the length of the material. Sew down through

the middle. No stuffing is needed for this type of arm. It gives the marionette an easy and graceful movement.

The hand is made in the shape of a mitten. Place two pieces together and sew about ⅛ inch from the edge. Turn raw seams on the inside. Put a small weight down in the fingers, then *stuff very tightly.* Be sure to stuff the thumb. Attach the finished hand to the arm.

For the legs, cut two pieces of material 4½ by 2½ inches for the upper leg, and two pieces 3½ by 2½ inches for the lower leg. Fold each piece in half lengthwise, then sew around the edge, leaving one of the short sides open for stuffing. Be sure to turn all raw seams on the inside. *Stuff very tightly* with raw cotton, then sew the opening.

The foot is made in a way similar to a baby's bootie. The foot must be weighted. Lay in the heel one 1-ounce weight, then stuff the foot tightly with raw cotton.

Assembling the Various Parts. The marionette is now ready to be put together. Begin by sewing foot to lower leg. Use strong white thread. Push the lower leg down into the foot, turn down the raw edges of the foot and neatly join the lower leg. Be sure that the foot points forward much as the human foot does. Join lower leg and foot to upper leg. Leave a space of about ¼ inch between the parts to provide for easy body movement, with the exception of the arms. The arms are sewed tightly to the top of the shoulders.

Costuming. This type of marionette should wear long sleeves and long skirts or trousers. All costuming must be done before stringing the marionette. The important thing to remember in costuming is to use soft materials so that the movement of the marionette will not be hampered in any way.

Making the Control. The control sticks may be made from any light wood. The wood should be about ⅞ inch

wide and ¼ inch thick. Three strips are needed, one 8 inches long and two 6 inches long.

Assemble the sticks to form a design similar to an airplane. Nail the 6-inch strip on the 8-inch one, about 2½ inches from edge. This forms a cross and holds the marionette. On this cross about ½ inch from the top drive a 1½-inch nail. This is used to hold the foot control, which is the other 6-inch strip of wood. In the center of this stick bore a hole large enough to fit over the head of the nail. This stick is then removable from the main control and is used to make the marionette walk.

Into this "airplane" control put screw eyes (to which the strings of the marionettes are attached) in the following places: two screw eyes about ½ inch apart under the part where you drove the nail (these are for the head strings); one screw eye on each arm of the cross (these are for the head strings); one about 4 inches from where you placed the screw eyes for the hands (this is for the shoulder string); one at the other end of the 8-inch stick (this is for the bow string or the string that comes from the bottom of the hips). Also put a screw eye in each end of the foot control; these are for the string which comes from the legs above the knees.

All screw eyes are put on the same side of the control stick.

Stringing the Marionette. Use strong, black carpet thread. The strings are attached to the most important parts of the figure: either side of the head at the back of the ears, center of back between the shoulder blades, center of the hips near the lower edge, the hands, and the legs. The strings should be a comfortable length for the one who manipulates the marionette.

Hold the control stick level and begin by tying the head strings in place. Insert the string in the screw eyes and tie securely. Next attach the shoulder string in the

same manner, then the hips or back string. You may have to tilt the control stick downward before tying in order to give the marionette more stability.

The hand strings are a little different. From the palm of one hand run a continuous string up through first one screw eye and then the other, then down to the palm of the other hand. Attach the leg string at the knee joint on the upper leg, then to the control stick. The marionette is now ready to perform.

14. *Linoleum Block Printing*

The steps in making a linoleum block print are as follows:

1. Draw the design on thin, tough paper; have the paper square, and complete the drawing before transferring it or beginning to cut or engrave the linoleum. In case of lettering or of designs with sides that must be kept right and left respectively, as in illustrations of people doing things, the design must be reversed. In reversing a drawing made on opaque paper, place it against a window for tracing. Tracing can be avoided, of course, by making the original drawing on thin, transparent paper such as onionskin or transparent bond paper.

2. When the drawing is completed, trace it on a piece of linoleum or on a linoleum block, fastening the drawing and the carbon paper to the linoleum with thumbtacks.

3. In engraving the linoleum, the first tool to use is the U-shaped veining tool. The first cutting to be done is on the outline. One of the larger tools is used to cut out the masses in the design which are not to print. The medium in linoleum block printing is referred to as "ink" even though paint may be the material used. When ink is applied to the block, the cutaway parts should be kept low enough to escape contact with the dauber or the brayer (roller). The

linoleum should not, however, be cut so deeply as to go into the burlap backing. The sides of the cutout spaces should be slanting, not perpdendicular; engraving should be just the reverse of undercutting. This makes the block stronger and also improves the printing edges of the linoleum.

4. Squeeze a little water color, printer's ink, or oil paint thinned with turpentine on a stone or metal slab or sheet of glass. A satisfactory dauber can be made of a ball of cotton covered with muslin. Use dauber, or a brayer, to put ink on block before printing on paper, cloth, or other material. Use as little of the ink as possible. Try printing first on a piece of scrap paper or cloth. When dauber or brayer forms a suction on the mixing surface, the quantity of the ink is just right. If, after printing, the paper or cloth shows through the paint slightly and evenly, the results may be considered successful.

5. If the pressure for printing is to be furnished by standing on the linoleum or block, a pad to put underneath the material for printing may be made with a few sheets of newspaper; or one side of a drawing board may be padded with some old pieces of muslin or other soft material. An abandoned "letter press," formerly used in copying letters, makes an excellent linoleum press if a genuine printing press cannot be afforded.

The blocks should be wiped clean after using. The cloth for wiping must be moistened with the liquid used to thin the ink. Prints made with linoleum engraved blocks should be thoroughly dried before handling.

15. *Stenciling*

Stenciling is a practical form of decoration that may be used with happy results in home adornment on such things as curtains, table covers, bedspreads, and walls.

The materials needed are heavy oiled or stencil paper, turpentine, indelible mixture, and round, stiff, bristle brushes, a sharp short-bladed knife, and a large padded board. The most useful brush is ½ inch in diameter.

After making the design, trace it on the oiled paper (using transfer paper). Cut out the areas exactly and neatly so as to leave no rough edges. Be sure that the areas are separated by spaces 3/16 inch or more in width. These will keep the design from falling apart. If a long, narrow portion is to be cut, this should be broken occasionally by solid spots, which are called "ties." Now stretch the material to be stenciled firmly over the padded surface, put the cutout design in place and hold it firmly by thumbtacks or stout pins so as not to interfere with the brushes as they pound or work the color into the goods.

Mix oil colors with drops of turpentine and indelible mixture on a flat nonabsorbent surface, such as glass or tin, to the consistency of cream but not too thin, for if it is watery the color may run under the edges of the design. Now touch the mixed paint lightly with the end of the bristles of the brush and rub or pound the color into the exposed cloth. The brush must be brought up sharply against the edges which should be held firmly against the material by the use of protection slips made of oiled paper. This also keeps the paint from spattering into the wrong openings. The slips must be changed frequently to assure neatness. Be sure to use a separate brush for each color. Do not have too much ink in the brush.

The idea in stenciling is to have the design appear to be woven in and not pasted on the fabric. The pasted, or painty, effect results when the paint is too thick.

Lift the pattern carefully, and before using it again be sure there is no paint on the reverse side. When repeating a motif, it is necessary to have little identification marks, called "registration marks," on each motif. If these are put

together exactly, the pattern will be kept straight and will repeat correctly.

After the entire design is applied, let it dry. Next, place the decorated material face downward on a clean, smooth cloth, put a damp cloth on the back and iron carefully. This will "set" the color. Material thus decorated may be washed very satisfactorily if a mild soap is used.

The stencil process is not, of course, limited to cloth, but may be used to apply decoration to wood and metal surfaces as well.

16. *Silk-screen Printing*[1]

The first requisite to make a fine silk-screen printing job is to have a good design. While this method of printing is effective, it is only as effective as the original design. It is wise to make the first design in one or two colors or in two values of the same color. These colors may be printed on colored stock if a third color is desired. Care should be taken to avoid small lettering and fine lines. Be sure that the original drawing is accurate with regard to the vertical and horizontal lines so that there will be no difficulty in placing the card correctly in the frame. A T-square and triangle should be used for this purpose so there will be no difficulty in keeping the print "true."

The next essential is to make a "true" frame. A large drawing board that has not warped is suitable for this purpose. Attach a perfectly "true" frame to this board with three pin hinges. Add to each side of the frame a metal strut or arm which will hold the frame suspended when necessary. Stretch the silk so that the grain runs with the grain of the wood of the frame. A simple way to do this is to put thumbtacks in the center of each side, then in the center of the remaining spaces, then at each corner. Small tacks, with large, flat heads, placed 1 inch apart,

[1] Nellie S. Norris, art teacher, Forest Park High School, Baltimore, Md.

should be put in and the thumbtacks removed. The edge of the silk should then be folded back and tacked to prevent too great a strain on the material. If the silk is not taut, rub it gently with a damp cloth to allow it to shrink. Gummed paper should be folded exactly in the center and pasted half on the wood frame and half on the silk to prevent the paint from running underneath the frame. Two small cardboard strips, no thicker than the cardboard on which the printing is to be made, should be placed at right angles at one corner of the base, and two more near the end of the two sides to ensure perfect registering. More margin must be left at each end to allow for the deposit of color.

There are several ways of transferring the design to the silk screen, the simplest being the profilm method. Profilm is made of a heavy transparent paper with a light coating of yellow vellum. Lay this on the design and cut out all parts of one color from the vellum with a sharp-pointed knife. Use great care not to cut through the heavy white transparent base of this material. Pick up the edge of the cutout design with the point of the knife and peel it off, thus leaving all parts of the design not to be printed covered with the yellow vellum. Lay this sheet of paper under the frame, vellum side on the silk, in exactly the position that the design will take on the printed cardboard. Then, with a small cloth saturated with adhering liquid, rub a small spot of the design. As soon as this is finished, use a dry cloth on the same spot. When the whole of the vellum has been adhered to the silk, gently peel off the transparent paper; the stencil of a silk mesh and a vellum to cover parts which are not to be printed will be left.

The color is poured into one end of the frame and pushed over the whole frame with a squeegee. The squeegee should be made almost as long as the short side of the frame. A piece of rubber, $\frac{3}{8}$ inch thick, may be sandwiched

between two boards. Move the squeegee as quickly as possible across the entire surface to prevent the thick paint from clogging the mesh of the silk. If the mesh becomes clogged, it will be necessary to clean all the paint from the silk and start over. As a good result depends upon speed, it is wise to get one student to place the cardboard accurately with the markers, another to move the squeegee across the surface, another to raise the frame and take out the prints, and several students to take them away from the frame to dry. If this process takes longer than a hundred prints an hour, it would be better to thin the paint somewhat.

When the whole process has been completed for one color, it is necessary to clean the paint from the silk with kerosene, the gummed paper with hot water, and the vellum with the adhering liquid. It is absolutely necessary to remove all marks and stains from the silk in order to use it again. The process is the same for each succeeding color.

17. *Batik*[1]

Batik, the name applied to design on cloth, made by a wax-resist process, has been known for two thousand years, though the highest development of this art was reached in the twelfth century in Java. The Javanese borrowed the art from India and have made it an important industry. Many people have since borrowed the art from Java, using for their materials cotton, wool, silk, or velvet from which all sizing has been removed.

The first essential for a batik work is a good design. Some artists insist it should be Javanese in character, but this would be similar to saying that all rugs should be Persian in character, since the Persians have made the finest designs for rugs. Just as designs and color schemes are peculiar to certain provinces in Persia, so certain designs and color schemes are characteristic in certain

[1] *Ibid.*

localities in Java. If a real batik is desired, it will be necessary to buy it in Java. Suffice it for our purpose, in teaching the art to students, to have a good decorative design and a pleasing color harmony.

Needless to say, in teaching the process it is best to select a simple motif that can be produced in a few colors. The lines should be flowing and curved rather than straight, as the wax brush, or tjanting, abhors a mechanically straight line or an exact circle.

After making the design on paper and coloring it with water colors or crayons, trace it on materials from which all sizing has been removed, as the sizing resists the dye. This also will ensure shrinking. Tracing is better done with a light lead pencil if the material is thin. If the material is thick, a dressmaker's perforator may be used to trace the design, and charcoal rubbed through the tiny holes. It will be necessary to retrace the design as the charcoal washes out with the first bath.

Be sure that the material is wet before putting into the dye bath, in order to prevent streaking. Keep the material moving constantly to secure an even color. Dye the lightest color first and, when thoroughly dry, wax the parts that are to remain this color. Repeat this process as often as desired, remembering that each color is affected by the previous colors. Rinse thoroughly after each dyeing. If a dark color be desired, it is better to dye several times, to get the effect that it will be when it is dry.

Any cold-water dye is usable. The temperature should be about 90 degrees to ensure the best results. Hot water will melt the wax and cold water will crack it, allowing the dye to seep in where it is not desired. Test the dye water on the wrist, as the body temperature is 98 degrees. The dye may be used many times but should be strained through a cloth before reusing to prevent spotting. Salt, vinegar, or acid may be put into the dye to make colors fast.

The material should be stitched to a piece of muslin or tape, which can be thumbtacked to a wooden frame. This raises the material from the table on which you are working and prevents the wax from being pulled off the material. The material may be doubled if it is sheer, and may need to be retouched on the wrong side with wax if it is heavy. The frame may be held up to the light to discover defects in waxing. The difference in the right and wrong side is a proof of genuine batik. A satisfactory piece of work will be the same on both sides.

The wax should be kept at an even temperature. An electric stove is best suited for this purpose. A large brush is better for large areas. The wax should be applied as evenly as possible so that any crackle which breaks through will be uniform. It is best, in waxing, to start away from the design in order to get a little practice in technique before nearing the design. Be careful not to use an overloaded brush as the wax will drop and cause a spot where not desired. Should this happen, remove the spot with Carbona, keeping a clean cloth under the spot and working from the outside toward the center to avoid spreading the wax.

If two typical colors are desired, or two complementary colors of the same value, they will have to be painted in. In this case make a narrow wax line around each part, wet the material, and apply the dye with a brush. This is good only for small spots, as the color cannot be applied evenly with a brush over large areas. This line will give a decorative effect but the color harmony is not generally pleasing.

The Javanese consider crackle a defect, because it spoils the intricate pattern of their design, adding lines of color where none were intended. But in our broad, modern patterns, a crackle sometimes helps to "tie" the design together. If no crackle is desired, beeswax should be used; if a great deal of crackle is desired, paraffin should be used. It is sometimes an advantage to mix the two.

If a piece of batik be important, a small piece of the same material should be used first as a sampler. Be careful to note the time the material remains in the dye to get the same result on the large piece. Silk and wool absorb the dye quickly, cotton and linen require much more time.

The wax may be removed by ironing the cloth with a *warm* iron. It should be placed between two pieces of porous paper. Newspaper may be used to thicken the pad, but is not safe to be used without a cover of bogus or wrapping paper, as the printer's ink is sometimes transferred to the batik. Further to remove wax, dip the material in varnolene *outdoors*. Several dippings may be necessary. Never wash batik. Always dry-clean it.

18. *Etching*[1]

Etching was first practiced in the artistic manner by Rembrandt and Dürer in the fifteenth and sixteenth centuries. The processes have not changed materially from that day to this and it is doubtful if any artists have achieved results superior to those of Rembrandt and Dürer. Some notable etchers were Hayden, Meryon, Goya, and, more recently, Whistler and Pennell.

There are four principal steps in the making of an etching: making the sketch, needling, biting, and printing.

Making the Sketch. The sketch may be made in any medium, but is usually made with a pencil or pen and ink, and is made from the subject in the usual way, except that thought is given to the manner in which it can be utilized with etching technique.

Needling. A copper plate is covered with an acid resist known as "etching ground." Such grounds are made of wax, asphaltum, and pitch, and protect the copper from action of acid. When the plate is evenly covered, it is then generally smoked to make it black. This is done as an aid to the artist in seeing the design. The lines that are drawn

[1] Don Swan, artist, Baltimore, Md.

through the ground show up clearly as bright copper against the black background. These lines are drawn with an etching tool known as a "needle," and the drawing of them is called "needling."

Biting. After the lines are needled, the plate is immersed in 30 to 50 per cent nitric acid. Bubbles can be observed on the plate forming in the needled lines. The more violently the acid bubbles the faster it is eating into the copper, the stronger the lines will show in the final print. "Stopping-out" is the process that the artist uses to secure the various intensities of lines required to render his subject most effectively. When the very faintest lines have been bitten to the required depth, the plate is removed from the acid and washed and dried. Then carefully, with a brush, those faint lines are stopped out (painted over) with a preparation of liquid wax that protects them from further action of the acid. The plate is, at this point, again immersed in acid until the next series of lines is bitten to its required depth. When all the lines have been bitten, the plate is again washed and dried. The ground and stop-out varnish are removed with alcohol and turpentine and the plate is ready for printing.

Printing. An etching press consists of two large steel rollers and a metal plank. "Wiping" the plate consists of putting on a rough coating of etching ink, heating the plate, and wiping the ink into the lines with a piece of cloth. After the plate has been properly wiped, it is placed on the bed of the etching press. Paper soaked in water, to make it soft, is placed over the plate, thick felt blankets over the paper, and the whole is run between the steel rollers (much like a clothes wringer). The finished impression is carefully lifted and placed between blotters to dry.

Framing. A narrow black frame with generous mat is most effective. A fine line of gold or silver inside the black is often used. The mat should be thick and cut so as to

show the pencil signature. A good proportion can be got by measuring the width of the etching and making the mat one-half this width top and sides. The bottom should be half again as wide.

19. *Weaving*[1]

Simple Hand Loom. This loom, the most practical for classroom use, is a rectangular frame with notches evenly spaced along the edges of the frame. The warp or foundation thread is passed through each notch, crossing from one side of the loom to the other until each notch has been used.

The weft, or foundation, thread is passed under and over alternating warp threads by means of a bodkin, this process being repeated until the piece of cloth woven is the desired length. Variety is obtained in the pattern by using threads of different colors and textures.

Upright Rug Loom. This loom is designed for rug weaving and is constructed like the hand loom but is larger and is fitted to a base which stands on the floor. The method of stringing and of weaving is the same.

Harness Looms. Harness looms are of two kinds: those having two harnesses, on which variations of plain weaving are done, and four-harness looms, used for pattern weaving. The steps in preparing both looms are the same, and are as follows:

Setting Up the Loom

Setting-up is the process of preparing the loom for weaving. It consists of four operations:

Warping. The warp threads run lengthwise of the material. They are those which form the foundation. The process of warping consists of measuring and cutting to

[1] Edna Shimp, art teacher, Roland Park School, Baltimore, Md.

the desired length the number of threads necessary for the length and width of the material to be woven. These are tied in small bunches of approximately 10 or 15 threads to the back beam of the loom.

Threading. Threading is the process of drawing in the warp ends through the heddles. These are the flat wires strung on the harness frame. The order in which the threads are drawn through the eyes of the heddles determines the pattern of the proposed fabric. A pattern is required for the operation and may consist of a simple repeat of four threads or may be an elaborate series of threads which will include the entire number of warp threads on the loom. The right-hand group of warp threads is first unrolled and one thread is prepared for drawing in. Insert the needle through the eye of the heddle designated on the pattern to be followed. Slip the thread over the reed in front. Use next the second heddle designated on the pattern and continue. As groups of 10 and 15 threads are drawn in, they may be looped or wound around folded paper until ready for the next operation.

Sleying. After all the warp threads have been drawn through the heddles, they must pass through the dents in the reed. The reed is the comblike strip of metal set in the beater. In sleying, all the threaded heddles are pushed to the left side of the loom, leaving a space to the right free and open. Holding the first thread ready, place the needle slotted side down through the first dent and draw the first thread through. Continue this process for the entire set of warp threads, working from right to left. Great care must be taken in this operation, for if the threads are crossed in the reed it will be impossible to weave. Missed dents will show spaces in the woven material.

As sleying progresses, it is advisable to loop each group of 10 to 15 threads together or wind them temporarily

around folded strips of paper. This will prevent threads from tangling or slipping out.

Tying-in. This step in the process consists of tying the sleyed threads in small groups of about 10 threads to the metal bar fastened by tapes to the breastbeam. Care must be taken here to see that the threads, when tied, will pass over the cloth beam. First, tie a group of threads in the center, then one at each end, then remaining groups, until all are tied with the same tension.

Reading the Pattern. Patterns for weaving are written in several different ways. The simplest and most easily understood, and the one most generally used, is the draft which indicates by means of a small black dot the position of each warp thread. Each of the four horizontal spaces of the draft represents one of the four harness frames. Number 1 is the front harness, number 4 the last harness, and 2 and 3 those between. Always read and repeat a draft from right to left.

The pattern to choose will depend on the weft materials to be used and the article to be made. As a rule, the warp should be finer than the weft. For large objects, patterns with large design motifs are more effective; for small objects, such as purses, towels, bags, small design motifs are better.

Patterns, as a rule, state the number of heddles necessary for a given width of material. Arrange these to the left-hand side of the loom, and raise all the harnesses by drawing down all four levers.

Weaving

The actual weaving operation is determined again by a given pattern. By depressing some of the levers of the loom, which raises those harnesses attached to them, a separation is made between the warp threads for the passage of the weaving, or weft, threads. This separation is called a "shed." Since there are six possible pairs in

the four harnesses, there are six possible sheds. Levers 1 and 3, and 2 and 4 raise every other thread and, when used alternately, produce the plain under- and overweave. In pattern weaving every weft thread introduced is followed by a tabby, or binder thread. The purpose of this thread is to hold in place threads which have had a repetition of the same levers and could not be held in place unless bound in by a thread of another combination.

In beginning the weaving of a piece of cloth, it is advisable to weave in a few 1-inch strips of rag on alternating tabby sheds to produce a foundation for the beater to work against. Next weave a narrow strip of plain weaving on the tabby shed, using a fine thread similar to or the same as the warp.

For ordinary weaving, wooden shuttles are used to carry the thread across the warp, one for the weft thread and another for the tabby. When material complicated in color pattern is woven, more shuttles are used.

The beater, or batten, is used to beat the weft thread into position to produce a firm, even fabric. Avoid "narrowing in" by allowing the thread to lie loose in the shed before beating, but do not leave loops along the edges.

As the weaving progresses and more warp thread is needed, release the tension on the rear beam by releasing the ratchet, unwinding the thread slowly, and rewinding it on to the breast beam. Continue the weaving until the desired length of fabric is woven. Remove from loom.

Finishing. Scarves, towels, and ends of bags may be finished by tying end threads to form a fringe. Other articles may be made of the woven materials in which the finishing of edges would be a part of the sewing.

In the main, the threading of the two-harness loom is the same as that of the four-harness loom. The variation would be in the combination of colored threads and in the texture.

20. *Pottery*[1]

Pottery is one of the most ancient of the historic crafts and one of the most fascinating. The craft is fascinating whether you are interested in the actual production of pottery or your interest is purely that of appreciation.

Building pottery by the coil method will now be discussed. For other methods see unit on "Ceramics," page 377.

In building pottery, the following suggestions should be kept in mind: Clay should be wedged thoroughly to get the air bubbles out of it. Wedging is done by throwing a piece of clay on top of another, or throwing it down several times on a hard surface. Clay should be the consistency of putty. If it is too hard for modeling, mix it with some water. If it is too soft, allow it to stand in the open air awhile. Roll coils on a flat surface, preferably on a plaster bat. Hold hands, palms downward, on clay lightly as you roll so as to get the coils perfectly round. Have in mind a definite shape you desire to make. Make bottom first by turning a coil around until it forms a base, working it together with the finger. Build up the sides of the bowl, working the coils together with the forefinger and at the same time pressing the object into the shape desired. If the piece is not complete in one lesson, cover it with a damp cloth and put it under a tin can if a zinc-lined box is not available. Before working on the object again, prepare a slip by mixing clay with enough water to make it the consistency of cream. This creamy slip is applied with a paint brush to the edge of the bowl or object. Then put on a new coil while the slip is still wet. This slip acts as paste or glue, and holds the new clay on to the old. When the piece is finished, dry it slowly with a damp cloth over it, for two days. Remove the cloth and allow it to remain another two days. Then

[1] Margaret M. Everist, art teacher, Garrison Junior High School, Baltimore, Md.

put the article in a dry cupboard, not exposed directly to the air, until it is thoroughly dry.

Glazing. Before glazing, be sure the piece is as smooth as possible. If decoration is desired, apply a design. Mix together underglaze slip and underglaze color, equal parts, and add 6 drops of glycerin and 12 of gum Arabic. Mix together thoroughly, on a piece of glass, and add water. Paint the design with this mixture, working for smoothness. The piece is now ready to be fired. Slip-decorated pottery may be given a second firing with a coat of transparent glaze. Glaze may be used inside and the outside left unglazed if a dull finish is preferred. You may rub over the dull finish with floor wax and rub until surface is smooth. This makes the piece resemble Indian pottery.

21. *Plaster Casts*[1]

There are various ways of casting with plaster of Paris, which may be employed according to the needs of the problem. There is the ordinary pull mold and cast taken from an object without any undercutting, and there is waste molding which is used to obtain a single cast of work with undercutting, and there is piece molding for obtaining a number of casts from the same object. Pupils make most successfully a simple pull mold of the type used for work such as masks.

Making the Negative Cast. Lay the object to be cast on a board, and place four pieces of wood around it to form a pen, rising 2 inches above the clay ground surface or ½ inch above the highest point of the object to be cast.[2] First clay-wash the inner sides of the wood and make the joints at the angles tight with soft clay. Mix your fine plaster in a

[1] Betty G. Rawlings, art teacher, Gwynns Falls Park Junior High School, Baltimore, Md.

[2] The pen is kept together by winding and tying with string, which can be removed easily once the plaster has set.

sufficiently large basin, half filled with water, by taking the plaster in big handfuls and shaking it loosely and quickly over the surface of the water so that the water gets into it at once. Continue this until the plaster begins to show above the surface in the middle of the water. This is just enough plaster. Let it stand a few seconds to allow the water to percolate through the plaster, then stir it with your hand, working the plaster well from the bottom, crushing or removing any lumps, until the mixture begins to thicken.

Cover the surface of the object to be cast with a thin coating of plaster of the consistency of thick cream. Then, by blowing, see that the plaster has entered all the cavities in the object and that no air bubbles appear in it.

Then fill up the rest of the form, striking the surface off level with the edges of the wooden form. Leave the mold to set thoroughly. The time required will depend on the freshness of the plaster used. Twenty minutes should be sufficient. First remove the four wooden walls, which will come away cleanly, as they have been clay-washed. Then run a wire under the object, turn the whole thing face downward, and clean out the clay. We now have the reverse, or negative, mold in plaster and it will be necessary to wash the remaining clay from it with clean water. Use a sponge so as not to destroy the surface of the cast. When clean, let the cast stand a few minutes to get rid of the surface water. Cover the mold well with a mixture of thick soap dissolved in water, using a soft brush. This should leave the surface with a satin gloss. Be careful to remove every particle of surface soap from the mold, looking especially into all the small hollows, otherwise it will kill the surface of the next mixing of plaster.

Making the Positive Cast. Place the wooden walls around the negative cast in the same way as before, making them watertight with clay, but this time they will need to be

only 1 inch above the surface. Mix and fill as before. A way of strengthening the mold or cast is to take a square of scrim and, dipping it into the basin of plaster first, rub it well into the back of the mold when the plaster is getting firm but not set. If put in too early, it will press through to the surface. When the cast is thoroughly set (the plaster gets warm to the hand in setting), knock away the edges and let water run on the back of the mold for a few minutes. The division between the mold and the cast will be shown by a slightly darker line. Lay a long-bladed knife along this line and tap with a mallet or hammer, treating all four sides in turn. Let water run over the crack and at the same time pry gently with the knife until the mold and cast come apart.

22. *Lantern Slides*

One important reason for using lantern slides as an aid in teaching is because they help to supply vicariously the experience so necessary to creative expression in art; they not only help to make the visual aspects of subject matter clear, but also furnish a background of reality for some art lessons which otherwise might be dull and uninteresting.

Selection and Use. Best results are to be obtained by using a few carefully selected slides, the number depending upon the difficulty of the material presented and on the interest and intelligence of the pupils. Slides should fit in closely with the unit of teaching in progress at the time they are shown. They should illustrate as completely as possible the information to be taught, thus making the instruction both concrete and clear.

All slides should be labeled and, before the time set for the lesson in which they are to be used, they should be carefully arranged in order of showing, preferably in a wooden box of appropriate size and shape. Each slide should be placed on edge in the box with its thumbmark up, at the right and

to the back, ready for use. While being used, slide boxes should be placed close to the stereopticon machine, at the right and left, in order to avoid the risk of their being brushed off on the floor by the operator, the slides to be shown being kept in a box just at the left of the machine. As the slides are shown, they are deposited in the box placed just at the right of the machine.

Care of Equipment. Pictures should be kept on the screen for not more than a minute at a time, to avoid overheating and cracking the slides. While class discussion of the slides is in progress, the electric current may be shut off.

Dust- or fingermarks on the slides or on the lenses of the stereopticon greatly reduce the clearness of the picture, and it is therefore necessary to keep both lenses and slides clean. A moist cloth for dampening and a dry one for wiping will enable the teacher to keep this equipment in condition. When the black tape which binds the pieces of glass together becomes worn, it should be replaced by new tape. When not in use, the stereopticon and slides should be kept covered and free from dust.

Making Lantern Slides.[1] There are also other substitute materials that are accessible to the teacher interested in the making of lantern slides. Slide glass, cover glass, pens, inks, binding tape, crayons, china marking pencils, etched glass, and boxes to hold the completed slides are purchasable. It has been found that ordinary clear window glass, cut to the 3¼- by 4-inch size, regular writing pen points, varied colored inks, mending tissue or adhesive tape, ordinary hard-pressed crayon, colored pencil, and chalk boxes will serve the same purpose, at little additional cost, to the maker of lantern slides. The latter materials, with few exceptions, are usually to be found in use in the school.

Steps in the Making of Lantern Slides. The steps in the making of lantern slides are: (1) original drawing or copy of

[1] Edward Gersuk, vice principal, School No. 69, Baltimore, Md.

a picture; (2) reduction to 3¼- by 4-inch size; (3) coloring of small picture, remembering to allow ¼-inch margin; (4) covering drawing with glass 3¼ by 4 inches; (5) holding the glass in place by means of corner holders; (6) coloring slide (with ink, crayon, or other medium); (7) taping the edges of the slide together; (8) covering slide with cover glass; (9) marking the corner in some distinctive fashion so that slide thumbmark will be visible in the dark. If the slides are to be used only for temporary purposes, the last three of the above steps may be omitted.

If window glass is used, the cover glass must of necessity be dispensed with, since the combined thicknesses of the two pieces of glass will not allow entrance to the stereopticon machine. Often a picture of the desired size can be made for copying. In this case the first three of the above steps are unnecessary. Where a large amount of detail is desired, it is advisable to draw first a large picture and then reduce it to the slide size.

Any clear glass used should usually be treated to a covering of uncolored gelatin. Colorless shellac, if brushed on the glass lightly, will offer a surface receptive to inks. Allow gelatin or shellac to dry thoroughly before coloring the slide. The foregoing treatment applies only to clear glass; if etched glass is used, the treatment is unnecessary.

If clear glass is used, colored inks are the best medium. For the beginner, it is often helpful to outline the figures and larger objects in the picture in the ink to be used in the figure or object. If the slide is unusually dark, the object can be accentuated through the use of a black India-ink outline. Generally the ink should be applied lightly unless special effects are desired.

The silhouette slide may be made by pasting cut paper figures on a piece of clear glass. A cover glass should be placed over this and the two pieces taped together. The result is unusual, but the detail is necessarily limited.

Often the extent of the silhouette slide is limited to one figure or action. Since the cover glass is essential, the commercial slide glass is here considered advisable, for both pieces will result in a slide thin enough to allow entrance to the stereopticon.

Etched glass may be used if a crayon medium is desired. This is the only kind of glass that will allow the use of crayon. It is advisable to use a hard-pressed crayon instead of the common wax crayon, on etched glass. Here it is necessary to caution the user that, if the crayon is applied too heavily, the result will be an opaque effect when shown on the screen. The crayon must be applied lightly. If the color has been applied too heavily, it can be lightened somewhat by carefully scraping some of the crayon from the slide with a sharp knife or a razor blade.

Etched glass is receptive to inks, but in so far as clear glass treated with gelatin is also receptive to inks, the greatest value of the etched glass is for the crayon medium.

Writing or printing on clear glass is possible if the glass has been treated with colorless gelatin or white shellac. If the glass is untreated, it is possible to letter or write by using a china marking pencil. It is advisable to plan the lettering first on paper drawn to the 3¼- by 4-inch size, and then to cover the paper with the slide glass and proceed with the printing or writing.

For a large amount of written matter, such as the words of a song or descriptive material that is rather lengthy, the use of the cellophane mat is recommended. This may be purchased at small cost. The mat consists of a piece of cellophane 3¼ by 4 inches. A piece of slide carbon paper 6½ by 4 inches is folded, carbon side in, around the cellophane mat. The mat and carbon may then be inserted in the typewriter and the material typed, care being exercised to allow the ¼-inch margin around the slide. The mat should then be placed between two pieces of cover glass and

taped. It is also possible to secure unusual effects by using ink on colored cellophane mats. The resulting drawing must be placed between cover glasses before being inserted in the stereopticon.

A more difficult method of making lantern slides may be used by someone who has access to a darkroom. Any photographic negative may be transferred to a sensitive glass plate by placing the negative's shiny side against the plate. This should be exposed to the light for a short time and then developed.

If the slides are to be kept permanently, they should be catalogued. An empty chalk box will hold the slides in place. An index card may be placed upright in the box, separating the sections dealing with particular subjects.

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APPENDIX A

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Appendix B

Some Examples of Outlines of Procedure

The following outlines are suggestive of those that may be developed in the carrying on of experiences in art in secondary schools as occasion demands. Each outline contains a suggested sequence of lessons, followed by a number of plans for several of the individual lessons. The outlines are intended to be suggestive of procedures and are not complete.

1. *The Contribution of Ancient Greece to Present-day Art*[1]

STAGES OF DEVELOPMENT

Orientation

Lesson I. General Background of Greek Life and Culture.
Lesson II. Slides and Discussion of Greek Art, Architecture, and Sculpture.

Design

Lesson III. Collection of Greek Pictures. Rough Sketches of an Adapted Greek Design.

[1] Outline by Dorothy J. Butler, Wyomissing, Pa.

Lesson IV. Continuation of Design. Application to Notebook.
Lesson V. A Trip to Art Museum to see Greek Sculpture.
Lesson VI. Design of One of the Following:
a. Model for memorial.
b. Stage set.
c. Mask.
d. Fashion design.

Forming Products

Lesson VII. Carrying Out Design in Materials.
Lesson VIII. Continuation of Activities.
Lesson IX. Finishing Products.
Lesson X. Arranging Exhibit.

Appreciation

Lesson XI. Discussing and Evaluating Results of Unit.

Lesson I

General Background of Greek Life and Culture

Aims: To show how Greek culture has influenced modern culture. To appreciate art of ancient nations, including Greece.

Materials: Manila paper and drawing pencils.

Illustrations of the following:

1. Map of Mediterranean world.
2. Palace of Minos at Knossos, Crete.
   a. Architecture.
   b. Mural paintings.
   c. Pottery.
3. Statue of Pericles.
4. Sculptures of Zeus, Athena, Apollo.
5. The Parthenon.
6. The Erechtheum.
7. Statues of Aristotle and Socrates.
8. The Acropolis.
9. Plan of a Greek theater.
10. Plan of a modern theater.

11. Statues of Aeschylus, Sophocles, Euripides, and Aristophanes.
12. Scene from a Greek play.

Programs of productions of Greek plays.

Introduction: What do you think of first when Greece is mentioned? Why do you think we should spend some time talking about Greek culture? Show map of Mediterranean world and tell class about racial characteristics and environment of the ancient Greeks.

Body of Lesson: Show illustrations of Minoan art and ask if anyone recognizes them. Explain its relation to and influence on Greek art. Mention work of Sir Arthur Evans and other archaeologists in uncovering lovely works of art for us.

What kind of government did Greece have? Show illustration of Pericles and sketch evolution of government from monarchy to democracy, noting important characters. Compare ancient Greek government with that of the United States.

What kind of religion did the Greeks have? How did it influence their art? Show illustrations of sculptures of Zeus, Apollo, Athena, and Artemis. How did the Greeks attempt to glorify their gods? Show illustrations of temples—Parthenon and Erechtheum. All beautiful buildings were either temples or government buildings. Homes were poor and ugly.

What often took the place of religion in the life of the Greeks? What great Greek philosophers' works are read today? Show pictures of Aeschylus, Sophocles, and Euripides, as well as Aristophanes.

Why do you think that we should study Greek culture and art? Make a quick sketch of anything we see or use every day which shows Greek influence.

Evaluation: This lesson should have done the following things for the class:

1. Sketched the background of Greek life and culture in its historical perspective.
2. Impressed upon the class the influence of ancient Greece on modern life.
3. Helped to give the pupil a respect for older civilizations.

Lesson II

Slides and Discussion of Greek Art, Architecture, and Sculpture

Aims: To give pupils a background knowledge of Greek art, architecture, and sculpture. To make pupils aware of the influence of these arts on modern culture.

Materials: Manila paper. Drawing pencils. Illustrations:

1. Greek design.
   - *a.* Egg and dart.
   - *b.* Bead and reel.
   - *c.* Double guilloche.
   - *d.* Acanthus leaves.
   - *e.* Leaf and dart.
   - *f.* Honeysuckle.
2. Architecture.
   - *a.* Three orders: Doric, Ionic, Corinthian.
   - *b.* Floor plan of temple.
   - *c.* Decoration and reliefs.
   - *d.* Parthenon and Erechtheum.
3. Sculpture.
   - *a.* Bronze horse statue.
   - *b.* "The Archer."
   - *c.* "Charioteer of Delphi."
   - *d.* "Discus Thrower."
   - *e.* "Athena Lemnia" (Phidias).
   - *f.* "Maiden" (Polyclitus).
   - *g.* "Hermes with the Infant Dionysus" (Praxiteles).
   - *h.* "Nike of Samothrace."
   - *i.* "Aphrodite of Melos" (Venus de Milo).

Introduction: Have you noticed any other things in the community which show Greek influence? Brief reports on previous lesson, including Greek government, religion, theater, philosophy, science.

Body of Lesson: Where did the Greeks use design? Show pictures of temples and pottery. There are a number of conventional patterns which were used by the Greeks, with variations, over and over again. Show pictures of Greek designs. What special characteristics do you notice in these designs? Do you

ever see them used today? Where? Show illustrations of Greek pottery. What other motifs were used for decoration? By what civilization were the Greeks influenced, especially in the making of pottery?

Show illustrations of the various orders of Greek columns. Can you give examples of these orders from buildings in your own community? From what you have seen of Greek architecture, what is its chief characteristic?

Mention the various periods of Greek sculpture and show illustrations from each period. Which of these works of sculpture do you like best? Why? Have you seen any of them before?

Using one or two of the motifs shown, plan and make a preliminary sketch of a decorative border to be used later on a folder or book cover to preserve pictures or notes on Greek art.

Assignment: Collect all the good pictures you can find which show Greek art and its influence on modern life and bring them to class for a notebook collection.

Evaluation: The pupil should have acquired an idea of Greek art, in architecture and sculpture, and of its importance to civilization.

Lesson III

Collection of Greek Pictures. Sketches of an Adapted Greek Design

Aims: To give members of class an idea of the requisites of good design. To show pupils the proper methods of mounting pictures. To encourage creative design.

Materials: Colored construction paper; library paste; poster paint; Manila paper; drawing pencils.

Introduction: What pictures of Greek influence did you find for your notebooks? Display of pictures.

Body of Lesson: Explanation of the selection of mounting paper, its relation to the picture and its relation to the other pages in the book. Pictures are mounted by pupils on construction paper.

Taking the preliminary sketch made in the preceding lesson, begin working it out in color, either cut from colored construction paper or painted with poster paint.

As the opportunity arises, stress the principles of design, such as varied and interesting spacing. Show how the Greeks used

these principles. Also stress the use of good color combinations.

Evaluation: The student should have received the following things from the lesson:

1. Some idea of interesting design and color.
2. Some feeling for Greek design and decoration and their modern implications.

Lesson IV

Continuation of Design. Application to Notebook

Aims: To teach students how to create suitable decoration for practical materials. To teach students something about bookbinding.

Materials: Unbleached muslin or linen crash; cardboard; stencil paper; oil paint; turpentine; stencil knives; brushes.

Encourage students to finish and submit designs.

Demonstrate how to cover cardboard with cloth to make notebook covers. Mention other methods of bookbinding.

Have students transfer patterns to stencil paper and cut stencils of their designs. Also have them mix the oil paint with turpentine and apply to notebook covers.

Conclusion: Bring the class together for discussion and have materials put away. What new things did you learn by working out this problem?

Next time we are going to the art museum to see an exhibit of Greek sculpture. Name some works of Greek sculpture that you know. Some of the sculptors. Before next time, will each of you look up something about sculpture in general, or about any particular piece of Greek sculpture in which you are especially interested?

Evaluation: The student should have learned:

1. Something about bookbinding.
2. Something about stencil making and application.
3. Something about color combinations.

Lesson V

A Trip to the Art Museum to See Greek Sculpture

Aims: To encourage appreciation of Greek art, through the study of reproductions and actual objects. To show Greek

ancient art in its relation to the art of other countries and times. To impress upon the pupil the value of museums in art education.

Materials: Sketching pads and pencils.

Introduction: How many have been to the art museum before? Do you remember any works of Greek art seen there? These are the things which we wish to look for. Name the works of sculpture, types of pottery, and examples of Greek architecture which we expect to see.

Body of Lesson: While we are walking through the museum and studying these things, will you sketch anything which interests you and which you believe could be used for your notebook or other work connected with the course? Encourage the pupils to ask questions about the exhibit, and if possible, have the curator of the museum on hand to answer questions or explain anything they might wish to know.

Here are some of the examples of Greek pottery. How do they compare with modern pottery? What principles have been used in both? What are some ways of making pottery? How do you think this pottery was made? Notice the use of the human figure as decoration on these vases.

Take a typical example of Greek sculpture in the museum and compare it with a typical modern sculpture. Is there any similarity? What differences do you notice?

Assignment: For next time, think about and plan a design for any one of the following:

1. Model for memorial.
2. Stage set.
3. Mask.
4. Fashion design.

2. *Stagecraft*[1]

Stages of Development

Lesson I.	History of the Theater.
Lesson II.	The Current Theater.
Lesson III.	Visit to a Theater and a Costume House.
Lesson IV.	Study of Costuming.

[1] Outline by Elwood R. Sulouff, Milroy, Pa.

Lesson V. Lighting the Stage.
Lesson VI. Sketching Floor Plan and Scenery.
Lesson VII. Designing a Small Theater.
Lesson VIII. Constructing the Theater.
Lesson IX. Designing Costumes.
Lesson X. Constructing the Costumes.
Lesson XI. Building Scenery Frames.
Lesson XII. Building Frames (*continued*).
Lesson XIII. Covering Scenery Frames.
Lesson XIV. Painting Scenery.
Lesson XV. Demonstration of Make-up.
Lesson XVI. Presenting the Play.
Lesson XVII. Evaluation of the Unit.

Lesson I

History of the Theater

Aim: To acquaint the pupil with the growth of and reasons for changes in the theater.

Materials: Lantern slides and illustrations of theaters. Enough to give good illustrated lesson.

References: The best is *A History of Theatrical Arts* by Karl Mantzius, published in six volumes.

This course should be worked along with the dramatic club or class play. Because of the ground that could be covered, omissions may be made. All can be used if longer lessons are desired.

I. The Theater in Asia:
   - Indian.
   - Javanese.
   - Chinese.
   - Japanese.*

II. The Theater in Europe:
   - Greek.*
   - Roman.*
   - Medieval.*
   - Italian Renaissance.*
   - French.

* Used in this lesson.

Spanish.
English.*
Eighteenth century.
Nineteenth century.

III. The Theater in America:
Eighteenth century.
Nineteenth century.
Twentieth century.

Show the class pictures of a Japanese theater, Kabuki type. Do they see any similarity to the theater of today? Show illustrations of the "Dionysus Theatre" of Greece as it appears today. In contrast show modern Greek Theatre at University of California. Compare these with open-air theater of Rome. Show picture of the "Reconstructed Theatre of Orange." Ask for comments on the differences in architectural forms. If it is not mentioned, point out the fact that the Greek theaters were built on a hillside; that no scenery was used except permanent buildings and trees for the Greek stage, and architectural elements for the Roman stage. Display pictures of the wagon stage as used for Miracle plays. Explain why the wagon stage was used and the type of performance given. Are any shows using this method put on today? Show pictures of the three types of stages used during the Italian Renaissance: pastoral, comedy, and tragedy. Why were these various types used? Show the Swan Theatre and Godfrey's Reconstruction of Fortune Theatre. Show pictures of America's eighteenth- and nineteenth-century theater, as the Park and Globe Theatre of New York.

If it hasn't been noticed, point out the move from the open to enclosed theater and the reason for this change.

Assignment: Ask pupils to bring in articles for Current Theater lesson.

Lesson II

The Current Theater

Aim: To acquaint the pupils with modern trends in theater decoration and equipment.

Materials: Slides of exterior and interior views.

* Used in this lesson.

References: Stage, Theatre Arts Monthly, Work Shop, and *New York Times.*

1. *Floor Plans:* Show floor plans of seating arrangements to the class:

a. One-floor type.
b. Bleacher type.
c. Stadium type.
d. Single-balcony type.
e. Balcony-mezzanine type.

Have pupils discuss these various types, as to best arrangement for spectators. Compare these types with those encountered in previous lessons. Have pupils give examples from local theaters or others visited.

2. *Interior Architecture:* Compare decorations of today with those of 10 or 15 years ago, by means of slides. Ask pupils why this change has taken place.

3. *Exterior Architecture:* Show views of theaters such as:

Reinhardt Theatre, New York.
Frank Lloyd Wright projected theater.
Play House, Cleveland.
Roxy Theatre, New York.
Small theaters in locality.

Discuss the practicability of these buildings to the purpose they house and to their location.

Lesson III

Visit to a Theater and a Costume House

Aim: To acquaint students with theater, scenery, lighting, curtains, dressing room, materials, and costumes.

1. *Visit theater, point out the different types of flats, draperies, cycloramas, drops, window and door flats:* Show how these are fastened and made ready for a set. Show and explain how flats are reinforced.

2. *Demonstrate lights:* Compare spots produced by a "soft-edge" spotlight and by a standard spotlight. Specific lighting is produced by any instrument with a lens; general lighting is produced without lens. Ask the class what is meant by specific lighting, general lighting.

3. *Demonstrate slide type and round-plate interlocking type of lights:* Do not go into detail too much, but enough to show the mixing and blending of colors. Ask pupils to mention color combinations, try these and discuss the experiments they make. Show various types and sizes of color frames by which gelatin color mediums can be applied to stage-lighting equipment. Show types of color wheels for use with spotlights.

4. *Visit costume house:* Examine costumes of different periods. Study carefully the materials used. Ask why the materials used in regular or proper cloths are not used in stage costumes. Examine accessories such as shoes, canes, boots, and wigs.

Discuss the materials that would be better for us to use.

Lesson IV

Study of Costuming

Aim: To acquaint the pupils with the history of costuming.

Materials: Lantern slides of old paintings showing period costumes. Slides from the following: prehistoric, Egyptian, Greek, Roman, Byzantine, thirteenth to twentieth centuries.

References: Chalmers, *Costumes on and off the Stage.* Evans, *Costume throughout the Ages.* MacKay, *Costume and Scenery.* Young, *Stage Costume.* Cheney, *The Theater, Three Thousand Years of Drama, Acting and Stagecraft.*

Present to the class pictures of different periods of costume. Point out the various changes in costume. The different means of decoration. Discuss the various places where inspirations for designs have been obtained: nature, church windows, geometric figures, and imagination.

Lesson V

Sketching Floor Plan and Scenery

Aim: To have pupils draw floor plans and scenery for a definite play.

Materials: Play to be presented. Pencils, paper, transparent water color, tempera paint.

Have pupils read one-act plays (the playwright's stage description). Have them sketch floor plans showing the placement of

furniture, windows, doors. From this have them design scenery. Pay particular attention to period of play and economic conditions. Design should be made to scale. The remainder of this lesson would depend upon the play selected. Have pencil sketches made first, and then have these worked up into colored drawings by use of tempera paint or water color.

3. *Masks*[1]

Stages of Development

Lesson I.	Masks and Their Historic Backgrounds.
Lesson II.	Historic Mask Design.
Lesson III.	Modern Mask Makers.
Lesson IV.	Interpreting a Play in Design.
Lesson V.	Designs for Masks.
Lesson VI.	A Clay Model for a Mask.
Lesson VII.	The Paper Mask.
Lesson VIII.	Color and the Mask.
Lesson IX.	The Stage Background.
Lesson X.	Mask and Scene.
Lesson XI.	Masks in Relation to Background.
Lesson XII.	Masks in Relation to Background (*continued*).
Lesson XIII.	Stage Design and Color.
Lesson XIV.	Stage Design and Color (*continued*).
Lesson XV.	Scenery Construction.
Lesson XVI.	Scenery Construction (*continued*).
Lesson XVII.	Scenery Construction, Costumes.
Lesson XVIII.	Costumes, Properties.
Lesson XIX.	Posters to Advertise Play.
Lesson XX.	Programs. Giving Play.
Lesson XXI.	Staging the Play.
Lesson XXII	Evaluating the Production.

Lesson I

Masks and Their Historic Backgrounds

Aims: To find out what children know about masks. To discuss where they were used. To understand why they origi-

[1] Outline by Alice Wendell Hummell, Allentown, Pa.

nated. To know materials used. To have a thorough appreciation of masks.

Materials: Illustrations; notebooks.

Questions and Answers

What do you think of first when you hear mentioned the word "mask"? Halloween, parties, dances, New Year's Eve, Mummers' parade, covering for the face, disguise, protection, knights, fencing, warriors. Shall we form a definition? Write on board: "A mask is a covering for the face, used either as a protective screen or as a disguise." When are masks worn for protection? Fighting—fencing. What kind did they wear? Knights wore wrought iron, and, for fencing, metal mesh. Savages painted theirs hideously to frighten enemies. When are they worn for disguise? Parties, parades, plays, rites.

Masks were primarily a ceremonial and religious object; secondarily, a festival employment. Gods were made in the image of man. The Egyptians used masks to perpetuate the appearance of the living after death and placed them on the mummies.

What was the main purpose of masks in Greece? Plays, drama. Grecian masks were quite grotesque, adapted to represent characters in the Dionysiac worship. The drama adopted them and made them of cloth, highly colored. What kind of theaters did the Greeks have? Amphitheaters—open—large. The large theaters had an effect on the size of the masks. The masks had to be large so that the spectators could see them. Aeschylus is the person accredited with developing masks to cover the head completely. The opening for the eye was no larger than the pupil, and the mouth was wide enough to allow the sound of the voice to carry, in the tragedy masks. Comic masks had distorted features and the mouth was large as a speaking trumpet. Do you know of any other use of Greek masks? Masks made of gold have been found on faces of the dead. They had a deathlike expression. The Greek goddess of the lower world was Persephone, and it is believed that the terra-cotta masks found on the walls of the tombs were meant to propitiate her. Show illustrations.

Japan has a greater variety of mask forms than any other country. What were their masks used for? Drama, court dances. Masks were used as toys for the children; as decoration on the shields; as defensive masks, which were made of wrought iron, with a fierce expression to terrify the enemy. What were Japanese masks made to represent? Human beings, men and women, gods, demons, and animals. Masks were introduced in the seventh century in connection with the worship of Buddha. At the beginning of the fourteenth century the Buddhist priests introduced the Nō, which was a form of drama. Many of the masked dances used were imported from China but they were enacted only by court noblemen and, if there were feminine parts, the men had to act them, as no women were permitted to wear the masks. The Nō mask was made of wood with a coating of plaster, which was then lacquered and gilded—the name of the maskmaker being inscribed inside, in red.

Can somebody point out on the map where Tibet is located? The masks of Tibet were used for sacred dramas, illustrating the several births of Buddha. The Tibetans had mystery plays with manifestations of gods and demons performed by awe-inspiring priests, or lamas. The masks were made of papier-mâché and cloth, occasionally of gilt copper. They were sometimes carved of wood and fantastically painted, provided with a wig of yak tail of different colors. Show illustrations.

What character have you seen in the circus that wears a mask and usually two people wear the costume? The horse and the lion. The lion originated in China, the head and shoulders were worn by one man and the hindquarters by another. The lower jaw was usually loose so that it could be operated from the inside to make a clamping sound in opening and closing. The Chinese made their masks of papier-mâché. Many times in the theater the actors painted their faces to represent masks. Different colors were used as symbols. A corrupt man wore a white mask; a good man, a red mask; a violent and brutal man, a black mask. Show illustrations.

Who will show the class where Ceylon and Java are on the map? In Ceylon masks were used in plays, masquerades, and devil dancing representing various diseases, to chase the disease

away. They were not intended to drive the devil disease away but to attach it to one spot. They were of carved wood—brilliantly colored and very large. In Java they were also made of wood for amusement and to safeguard people from calamities. Show illustrations.

What were the masks in Africa used for? War, dances, witch doctors. Most of them were religious rather than festal. They were carved of wood and had an enormous fringe hanging from the base of the mask over the shoulders. Show illustrations.

What peoples in North America used masks? Mexicans, Indians, Eskimos. Through their sculpture, picture writing, manuscripts, and pottery, it was first learned that the ancient Mexicans wore masks. Show illustrations. Many masks were later found with holes in the upper corners to attach to something —made of wood and encrusted with turquoise, but their use is not yet known. Where have you seen pictures of ways in which the Eskimos of Alaska use masks? Totem poles. What do they represent on the totem poles? The history of the family. The Eskimos believed that all animals had a dual existence, so they sometimes made masks to represent animals, so arranged that the beak or muzzle of a mask could be lifted, then the human face would appear. The human features were to represent the brain or thinking part of the creature. Show illustrations.

What were the masks of the Indians used for? Religious ceremonies, war dances, medicine men. Indians of the southwestern United States wore masks mainly for religious purposes. They were wooden and leather cylinders closed at the top, fitted over the head, and resting on the shoulders. Today they use leather and rawhide. The eyes are two buckskin balls filled with deer hair, the nose—buckskin rolled and tied with sinew, or a corncob. In representing animals, they use a projecting wooden cylinder for a bill—the mouth is a hole with a ring of buckskin; if teeth are needed, they use braided cornhusks—the ears are disks of wood. Some of their masks have horns attached to them, mounted on a wooden rainbow. The masks are sometimes decorated with feather plumes, wooden arrows, lightning sticks, and beads. Brilliant colors were used and the sex of the mask was indicated by round heads for females and square heads for

males. The Pueblo Indians made their masks of soft buckskin but, instead of wearing the masks, they covered their bodies with crinoline and carried the masks on poles. The tribes of the Northwest had masks 3 to 5 feet high, made of cedar wood, which they used for dancing and to attach to the fronts of houses to "protect" the family inside. The Iroquois and Peruvians had carved wooden masks for the deceased, which they adorned with a wig of human hair. The medicine man had a different mask for treating each different ailment. Show illustrations.

Assignment

Next week we shall make illustrations of the historic masks we studied today.

Look for illustrations of masks for your notebook.

Write up your notes for the next class.

Lesson II

Historic Mask Design

Aims: To derive knowledge of proportion and characteristics in historic masks. To study authentic color of historic masks through illustrations.

Materials: White drawing paper; crayons—charcoal; illustrations.

Questions and Answers

Last week we talked about historic masks of different countries. Of the countries we studied, what were the different uses made of the masks? Write on board as students give uses: plays, drama, court dance, devil dance, masquerades, safeguard the people, war, witch doctors, religious ceremonies, war dances, protect homes, faces for the dead, scare away disease. What countries were known for using masks in plays? Greece—Japan—China. Write on board the names of countries after the uses. Did these three countries have any other use for masks? Greece, drama; Japan, court dances. What countries used the masks for devil dancing? Ceylon, Java, Africa, North America. Did they have any other use for masks? War dancing, witch doctors, religious

ceremonies, war, scare away disease. What country did these masks come from? (Show illustrations.) Alaska. What country used these masks and why? (Show illustrations.) Egypt —for the faces of the dead. What country used these masks and what were they used for beside devil dancing? (Show illustrations.) Ceylon—for masquerades. These illustrations are pictures of masks from Greece—what were they made of? Cloth, highly colored. Show illustrations of Japan and the following countries to get the children to mention the materials as the pictures are shown. Write all on board. Japan? Wood, coating of plaster, gilded. China? Papier-mâché. Java and Ceylon? Wood. Africa? Wood. Eskimos? Wood. Indians? Wood, leather, rawhide. Egyptians? Gold.

Look over the list of countries and the uses of the masks and decide which country you would like to represent in your drawing.

Divide the class into groups according to the countries.

Sketch with charcoal the illustration of the mask you have selected; draw just the mask and make it large so that it will fill the paper. After sketching it, color with crayons.

The best drawing from each group will later be selected by the class for display, showing the differences in mask making as carried on in the various countries.

Next week we shall talk about modern mask makers.

Lesson III

Modern Mask Makers

Aims: To familiarize students with modern use of masks. To teach modern mask making.

Materials: Illustrations, reflectoscope, notebooks.

Questions and Answers

If you wore the mask of a monkey, would that affect your actions, John? How would you act? Would you act differently if you wore the mask of an old lady? Your actions change according to the mask you wear. If you wear a mask with an ugly face, your whole figure becomes ungainly. If you wear a mask that is beautiful, your figure becomes beautiful. When

wearing a mask and acting, the action seems to change the expression of the mask. The facial expressions are brought about by the movement and position of the head and neck in relation to the rest of the body. A mask of a frowning man with head up looks proud, pugnacious, commanding. The same frown expresses sorrow and suffering if the head is lowered. Did John change the expression of his face when he showed how a person wearing a monkey mask would act? That proves that the mask not only has an effect on the person watching the acting, but also on the person wearing it, as unconsciously, behind the mask, he imitates the expression of the mask.

Why do you wear a mask on Halloween? Do you not wear the masks to add a bit of mystery to yourself? The ancients and modern primitive peoples had "supernatural beings" to surround the masks, and gave them a prominent part in their religious ceremonies. When a person confronts a masked person, he is bound to be mystified no matter how worldly he may be. Masks may or may not fascinate, terrify, amuse, but they never fail to mystify.

Would a very large mask on your head have any effect on the size of your body? Dwarf it. What would a small mask do to your height? Enlarge it.

The modern use of masks is mainly for pantomime. What do we mean by pantomime? Speech spoils the effect of masks as when the wearer speaks you expect to see the lips move. When the Greeks used masks, made two inches away from the face, they spoke through a funnel; the audience was so far away. In masked pantomime great poise, extreme restraint of motion, and elimination of all meaningless gestures are required. All movements are slower, once the masks are put on.

What is the name of the most famous modern mask maker? Benda. Wladyslaw Theodor Benda was born in Poznan, Poland, January 15, 1873. He came to the United States in 1899 and was made a naturalized citizen in 1911. He is an illustrator and painter beside being a mask maker. He has illustrated for many magazines, as *Century, Scribner's, Cosmopolitan, Collier's,* and *McClure's*—also for many books. He and his wife were once invited to a masquerade and he decided to make masks for

both. The masks so intrigued the people at the party that he continued to make masks and to elaborate on them. Today Benda's masks are used not only in the legitimate theater, but in the cinema as well. Other well-known mask makers are: Max Esser and Richard Teschner of Germany and Emil Circher of Austria.

Show illustrations in reflectoscope of the modern mask maker's productions.

Assignment

Next time we shall talk about the play we are going to produce. In the meantime, think of ideas for the mask you would like to make. Write up the notes of the modern mask makers in your notebook.

Lesson IV

Interpreting a Play in Design

Aims: To read the play. To discuss characters that will be needed and types of masks necessary.

Materials: White newsprint paper, charcoal.

Illustrations of modern masks and mask makers used in the preceding lesson.

Questions and Answers

Why are modern masks best when used in pantomime? Because when a person speaks, the audience expects to see the lips move. Sounds in masks are not distinct. Show illustrations by Benda. What is the name of this mask maker? Benda. Can you tell me something about his life? He lives in New York, started to make masks when he and his wife were invited to a masquerade, is an illustrator and perhaps the most famous mask maker in the world. What is the name of this mask maker? Show illustration of Max Esser. What is the name of this mask maker from Germany? Richard Teschner. How can we change the size of the person wearing the mask? Large mask dwarfs figure; small mask enlarges figure.

The selected play will probably have been read in the reading, literature, or English class. The class will discuss the characters:

Name the characters in the play. Describe each character so that the students, as they mention the characteristics, will form a mental picture of it. As the names are mentioned, write them on the blackboard, then write important characteristics under each name—facial characteristics, and costumes.

Write the names of the characters and their characteristics in your notebook, copying from the blackboard. (Definite questions about the characters in the play cannot be given here, since no definite play is specified.)

Assignment

For the next lesson, start collecting orangewood sticks, lollipop sticks, nails, and knives. You will need them for modeling the clay or Plasticine.

Lesson V

Design for Masks

Aims: To design original masks. To use color to interpret the mood of the mask.

Materials: 12- by 18-inch white newsprint paper; charcoal; colored chalk.

Last week we mentioned the characters we shall need in our play, and their various characteristics. Look at your notes to freshen your memories.

Questions and Answers

Why do you want to exaggerate the features when designing a mask? So the audience will be able to see them. Because of the lighting effects on the stage. What feelings or emotions would different masks show? Greed, contentment, pain, joy, jealousy, sadness. Decide on which emotion you would like your character to represent and have it in mind while you are making your drawing. Do not get too many details into your drawing, as when you start modeling you will not be able to put all the details in.

Would the colors of your mask have any effect on your character? How would the colors help your mask? Make the mask

important and improve its carrying power by the use of strong darks and lights. For a person smiling, would you want warm colors? What warm colors would you use on the mask of a happy boy? Red, yellow, orange, and tan. What colors would you use on the face of a person in pain? Blue, purple, green, and yellow. Would the colors of a smiling old woman be any different from the colors of a happy boy? The colors on the boy would be more vivid, stronger.

When drawing your mask, what are the two things to remember? Color of mask and exaggeration of features.

Decide on what character in the play you would like to interpret.

Draw the character you would like with charcoal, then color it with colored chalks, remembering to color the mask to suit its personality.

Assignment

Next week bring a large piece of discarded cloth to class. We are going to start modeling our masks, and the cloths will be needed to keep the model damp between lessons.

Lesson VI

A Clay Model for a Mask

Aims: To make a clay model for a mask. To learn exaggeration of face levels.

Materials: Newspaper for desks. Pieces of board for the clay. Clay for each student. Modeling tools:

Orangewood sticks
Knives
Lollipop sticks
Nails
Boards and blocks of wood to build masks on.

Some time ago you discussed different masks you have seen. How much of the face did they cover? Half masks, masks covering front of face, covering front and sides, covering sides and top of head, covering whole head. Almost all these types can be used in a play, except the half mask and the flat front mask.

Why do you not want to use those types? We want to make entirely new faces and these do not show new characters. What are their purposes? To disguise the identity of the wearer, to express feelings.

Draw on board the following sketches: (1) mask covering only the face; (2) mask covering the face and top of the head; (3) mask covering the entire head; (4) mask worn like a helmet, fitting around the head and resting on the shoulders.

Today we shall make the half masks that will be used in the play. If they do need a top or a back, that part can be finished later.

Place your newspaper over your desk. On top of it lay the flat piece of wood, and on top of that lay your bulky rectangular block. We are going to mold the clay over the block. Why do we put the block under the clay? To save clay; to give stability to the clay shape. Mold your clay into a ball so that it will become pliable, easy to work with, then put your clay over the block and work it into a smooth oval shape, like a head. You have your designs in front of you and that will help you to exaggerate the features. Owing to the height of the stage and the lighting effects, your shadows and lights on your masks will have to be exaggerated. What feature on the face is the highest? Nose. The next highest? Lips, chin. Next? Forehead, cheeks. Next? Eyes. This holds true on the average face. Yours may vary according to the type of character to be interpreted.

Model your mask bold and free so that there are no tiny details. The face levels must be cut deep and clear, no undercuts. Why should undercuts in the clay be avoided? So that the mask can be pulled away after the papier-mâché has been applied.

After you finish the masks, the ones chosen for the play will have backs put on them. The backs are made of chicken wire, molded to the head, covered with burlap. If the character has hair, this is fastened to the burlap.

Your clay masks should be about 6 inches wide, to fit on the face.

Put damp cloths over the models when the period is over so that the clay will not dry. If it dries, your mask is likely to

crack and all your work will have been wasted. Keep the cloths damp all week. Look at them every morning and redampen if necessary.

Lesson VII

The Paper Mask

Aims: To cover masks with papier-mâché. To teach students the method of acquiring a smooth mask.

Materials: 1- by 12-inch newspaper strips; 1- by 12-inch paper toweling strips; flour paste, very thin.

When making a mask the paper should be soft enough to be pliant, and yet strong enough so that it will not tear when used. We are going to use newspaper strips and paper toweling strips to cover the mask. Will more than one layer of paper be needed? Yes. How many layers would you suggest? Four or five. Five layers should make a nice mask. We shall use three layers of newspaper and two layers of toweling. Dip each strip into your paste solution before putting it on the mask. Dip the strip into the solution and run it between forefinger and thumb as you pull it out so that your mask will not be too wet. (Demonstrate to class while talking.) Before applying the strips on the model, cover the entire model with linseed oil. Why is this done before applying the paper? So that the mask will be easily pulled away from the clay foundation. Lay each layer in a different direction —the first layer horizontally, the second layer vertically, the third layer diagonally—then apply a vertical and horizontal layer of toweling. Press each piece down firmly over the form, getting into all the corners and crevices. The eye and nose openings and the mouth opening will be put in the mask after it dries. It is best to put the openings in the shadows of the masks so that they will not show.

Assignment

Next week we shall finish the masks and fix the backs of those that are to be used in the play.

Bring pieces of colored yarn and glass for the hair.

This lesson will require two periods. Write up this lesson in your notebooks.

Lesson VIII

Color and the Mask

Aims: To apply color to masks. To learn about the color of masks in relation to color of background.

Materials: Show-card paints; gilt paint; yarn; shellac

Questions and Answers

We talked about the color of masks when we made our designs on drawing paper. What colors would we use when making a mask of a happy boy? Strong colors: red, yellow, orange. What colors when painting a mask of a sad boy? Blue, yellow, red, green. What colors when painting the mask of a sick old woman? White, yellow, violet, blue. What colors when painting the mask of a very evil man? Blue, violet, green, yellow.

Do colors have any effect on your feelings? In what way? Warm colors make you feel happy, cold colors and dark or neutral colors make you feel depressed. When applying make-up for a Halloween party, why do you use brilliant colors and exaggerate your features? To play the part of your character.

Select two mask designs from the class—one with strong colors and one with pale or weak colors. Hold them up in front of the class against a contrasting, preferably a white, background. Which mask can you see the better of the two? Why does that one stand out more than the other? The color is stronger and the levels of the face are exaggerated.

Show class finished masks, colored, so that the students can appreciate the effect of strong lights and darks in masks.

When you begin to apply your colors, which colors will you put on first, the light or the dark ones? The light colors, then add the darks.

Begin to apply your light colors and work slowly so that your mask will be striking and will show off well from the stage.

This lesson will last three periods. Finishing the painting and applying the colored yarn.

Lesson IX

The Stage Background

Aims: To study stage backgrounds in relation to color of masks. To study simplicity of stage design.

Materials: 12- by 18-inch white newsprint paper; charcoal; colored chalk.

Questions and Answers

Would color in the stage setting have any effect on you? Same effect as masks: it would have the power to make you happy or sad. Would color in the setting have any relation to the mask color? If the character is portraying a gruesome scene, the background should be gruesome. The background helps the character play his part, but it must be subdued in color so that the actor will be the more important of the two. In painting the scenery, is it better to have everything realistic or would it be wiser to have the background simple? Have the background simple in design.

Color has a great effect on the play. If the color is too vivid, it will attract attention and kill the acting of the characters. Stage settings used to attempt to make everything realistic down to every tree or stone, everything was made to deceive the eye, but the modern producer realizes that the setting must be made and kept subordinate. Color in the scenic background must help to carry the play across to the audience; it must support the action and harmonize with its mood, yet it must not compete with the action of the play. Your setting should be quite simple in design and it would be safe to use flat grayed colors, as a lot of shading in colors will not carry across the stage. If you want to show shading, show it simply through strong lights and darks.

Lighting has a great effect on the colors on the stage. We may not have up-to-date lighting effects on our stage but we shall be able to experiment a little by using gelatin slides over the spotlights. If we paint a scene for a sunny day and want that same scene at night, how can lights help to make the same scene look like a night scene? Throw blue, green, violet lights on it. What color of light would you use for a clear day? Bright yellow.

After we paint the scenes we shall have to experiment with the lights and find out what colors will have the best effect.

The class will decide how many scenes the play needs. A discussion will follow about the play, in regard to what should be in the background for each act.

Sketch your idea of one of the scenes in charcoal, then color with chalks.

This lesson will occupy two periods. The actual setting will be planned while some of the class is working on the other projects. The background will be simple. The best drawings will be selected by the class and ideas will be worked out by a group selected to make the scenery and provide the properties.

4. *Painting*

Stages of Development

Orientation

Lesson I. Paintings We Are Familiar With.
Lesson II. Broadening Our Knowledge of Painting.

Design

Lesson III. Acquaintance with Mediums and Techniques
Lesson IV. Sketching.

Forming Products

Lesson V. Developing Our Sketches.
Lesson VI. Painting.
Lesson VII. Continuing the Paintings.
Lesson VIII. Finishing Our Paintings.

Appreciation

Lesson IX. Judging the Results.

Lesson I

Paintings We Are Familiar With

Questions and Answers

What modern painter's works are you familiar with: Cézanne, Degas, Gauguin, Manet, Monet, Van Gogh. Name some of their works. What are the nationalities of these men? Cézanne,

Gauguin, Degas, Manet, Monet are French; Van Gogh, Dutch. Who knows anything about the lives of these artists? Tell the class what you know. (Add what the student omits.)

What is meant by "modern painters"? Artists who paint everyday life from an expressionistic point of view. Name some old masters and their works. Rembrandt, "The Night Watch"; Millet, "The Man with the Hoe"; Reynolds, "The Strawberry Girl"; DaVinci, "The Last Supper," "Mona Lisa"; Gainsborough, portraits; Whistler, "Mother." Tell us about the lives of these artists. What nationalities are they? Rembrandt, Dutch; Reynolds, English; Whistler, American; Millet, French; Da Vinci, Italian; Gainsborough, English.

Who has seen the movie "Rembrandt"? Tell the class what you remember about his life.

You will be shown slides of paintings made by the artists mentioned. See if you can recognize the artist. (As slides are shown, discuss principles of design with the class using the slides as illustrations.)

Slides: Cézanne. "The Village Street," "The Poplars," "The House on the Hill in Provence," "Village behind Trees."
Degas. "The Ballet."
Gauguin. "Tahitian Mountains."
Manet. "The Fifer Boy."
Monet. "Sailboat at Argenteuil," "Summer," "Fishers on the Seine," "The Doges' Palace," "The Regatta at Argenteuil."
Van Gogh. "Boats of Saintes-Maries," "The Poppyfield," "View of Arles," "Landscape with Bridge."
Also works by Rembrandt, Millet, Reynolds, Da Vinci, Whistler, Gainsborough.

Lesson II

Broadening Our Knowledge of Painting

A Trip to the Museum—Exhibit of Picasso's Works.

Questions and Answers

What difference did you notice in the works of this "modern painter" as compared with those of the "old masters"? Artist's

approach to subject; design; color; technique; choice of subject. How does Picasso apply his paint as compared with the old masters? Applies oils with free strokes, some thin, others broad. Which of his pictures did you like best? Why? Could you recognize some of the periods of Picasso's works? Rose period; blue period; cubistic; neoclassic, naturalistic. Did you enjoy this exhibition or do you like the old masters' works better? Why?

Lesson III

Acquaintance with Mediums and Techniques

Questions and Answers

What is a medium? Material used in creating the picture. Which of you has ever painted with oil colors at any time? Did you like painting with oils? What did you notice about oil paints that is different from water-color paints? Consistency of oil paint, dries slowly, treatment of oil colors—turpentine, linseed oil, varnishing—will not wash off with water. How did the artist go about painting this picture? Did he paint it directly on the canvas? Sketched design on canvas with pencil or charcoal, then commenced applying color. Does one of you know what oil paint is made of? Pigment, chemicals, linseed oil. What do you like best to paint pictures with, Mary? Why? How do you paint with water color? Did you paint over your strokes again and again? Should not repaint water-color strokes but keep them fresh and clear. Water colors can be used on dry paper or on wet paper. How do you paint with show-card color? Do you know that show-card color can be painted on in little dots called "stippling" or "dry brush?" (Explain and demonstrate this method to class.) Has anyone in this class used pastels? Pastels are sticks of fine chalk which come in a variety of colors. How do you use the pastels in working? Crisp strokes or rubbed colors? Let's have a practice lesson now, using the mediums we have discussed. Who can discover some other ways, besides those we have mentioned, for using these mediums?

Lesson IV

Sketching

Today we are going to make sketches from our own experience for our paintings. First of all, we should choose a subject for our sketch. Then we must learn how the artist holds his pencil to sketch correctly. He holds it this way. (Teacher shows class how to hold pencil.) At first it may be difficult to draw with the pencil held like this, but it will give you better wrist movement and a freer stroke. Practice holding your pencil this way while John gives out the paper. Bob will put the materials on the table. Each row, go up and take the medium you wish to work with. Remember, these are to be merely sketches in color, not finished paintings. Each of you may make several sketches so that we can choose one to work up as a finished painting. Tom, what are the things you must keep in mind when you draw your picture? Idea, arrangement, harmony in line and color. Try to remember these things as you work. What is meant by "sketches from our own experience"? Something which has happened to a person or which he has seen.

Lesson V

Developing Our Sketches

Today we are going to start our large paintings. First, put the sketches on the bulletin board to decide which we should work up. Which one do you think Mary ought to do? All right, Marvin, tell us why. Idea is good, color is pleasing, good design. Does anyone have a suggestion to improve this sketch of Mary's? Who knows how to enlarge a sketch? How would you do it, Betty? With diagonals. Fine. There are also other ways to enlarge a sketch. (Teacher shows class other methods by drawing on the blackboard.) You may enlarge your sketch any way you like. Now, get your colors and begin work.

Lesson VI

Painting

(Continuation of Lesson V.)

Lesson VII

Continuing the Paintings

(Same as Lesson VI.)

Lesson VIII

Finishing Our Paintings

Susan has a problem here. She does not know how to fill this corner of her picture interestingly. Who can help her? Tell us, Frank. By adding some interesting lines and colors.

Lesson IX

Judging the Results

Everyone pin his painting on the display board so that we can all see them. Which do you like best? Why? Idea; principles of design. How do you think Joan could have made her painting a finer one? Do you not think John arranged his colors well on the paper? Harry has interesting trees in his picture, doesn't he? What makes them interesting?

5. *Lettering*[1]

Stages of Development

Lesson I.	Getting Acquainted with Lettering.
Lesson II.	Visiting the Museum to Learn More about Lettering.
Lesson III.	Reporting on Museum Trip and Reading.
Lesson IV.	Experimenting with Materials Used in Lettering.
Lesson V.	Learning Letter Construction.
Lesson VI.	Learning about Composition in Lettering.
Lesson VII.	Planning the Use of Lettering.
Lesson VIII.	Constructing a Lettering Folio.
Lesson IX.	Working on Problem.
Lesson X.	Working on Problem (*continued.*)
Lesson XI.	Finishing Problem.

[1] Outline by Bertha Filsinger, Pittsburgh, Pa.

Lesson XII. Arranging an Exhibit of the Products.
Lesson XIII. Evaluating the Results.

Lesson I

Getting Acquainted with Lettering

Aims: To appreciate lettering, past and present.

Materials: Illustrations and lantern slides of different forms of writing.

Procedure: Have you ever thought of the different ways we have of writing? Writing is such an ordinary thing that most people pay too little attention to it.

Questions and Answers

Do you know what name is given to the kind of writing we do everyday? Script. It might be well to talk about the derivation of this word "script" because we shall come across other words ("scribes," "inscription") that are derived from the same root. What other forms of writing have you noticed? Typewriting, printing. Where do we find these forms? Business letters, newspapers, magazines. Why are these forms used in preference to script? Speed, legibility. Do you know of a still more rapid way of writing? Shorthand.

We have samples of writing here that you cannot read. (Show pictures or slides, or both, of hieroglyphics, Chinese writing, cuneiform writing, Greek, German, and Hebrew printed material, shorthand. A few words of explanation should accompany each illustration.) Now we shall view some writing that you can read. (Slides or pictures illustrating roman lettering, italic lettering, modern lettering.) Comment on each.

Since you will want to know more about lettering and writing, a list of sources of information has been prepared. Examine this list and each of you decide on which topic he prefers to report.

Bibliography: Encyclopedia (Hieroglyphic, Alphabet, Inscription, Paleography, Writing, Cuneiform, Printing, Stylus, Reed Pen, Quill Pen, Ink, Papyrus, Paper, Parchment, Pencil.) T. E. French, *Essentials of Lettering.* F. W. Goudy, *The Alphabet.* F. W. Goudy, *Elements of Lettering.* H. Humphreys, *Origin and*

Progress of Art of Writing. W. Morris and E. Walker, *Printing.* A. W. Seaby, *Roman Alphabet.* S. B. Tannahill, *P's and Q's.*

Assignment: For our next lesson we shall visit the museum to learn more about lettering. Take paper and pencil with you so that you can make notes and sketches of what you hear and see.

Lesson II

Visiting the Museum to Learn More about Lettering

Aims: To appreciate lettering, past and present. To gain knowledge about lettering. Make arrangements with the museum authorities, telling them the purpose of your visit. Probable departments to be visited:

Architectural Hall.
  Hieroglyphics, cuneiform writing, roman lettering.
Egyptian Room.
  Hieroglyphics, clay or wax tablets, papyrus.
Textiles Room.
  Persian writing, Chinese characters.
Manuscript Room.
  Persian miniatures, parchments.
Manuscript Room.
  Materials, samples of alphabets, types, printing presses.
Library.
  Copies of alphabets, compositions, titles, monograms.

Pupils make notes during the visit. Pupils make sketches during the visit.

Lesson III

Reporting on Museum Trip and Reading

Aims: To appreciate lettering, past and present. To acquire ability to present important items of a topic. To acquire knowledge of the history of Lettering.

Procedure: Following reports:

Egyptian writing.
Assyrian writing.
Greek writing.

Roman writing.
Invention of printing.
People who have contributed to the progress of writing:
Alcium of York—Caroline Letters (lower case).
A. Dürer—constructed alphabet with compasses.
J. Gutenberg—movable type.
F. W. Goudy—modern type.
American alphabets:
Lucian Bernhard, Fred Cooper, Oswald Cooper, Harvey Dunn, W. A. Dwiggins, Fred Foster, F. W. Goudy, Gustav Jensen, G. and L. Rosa, Joseph Sinel, Walter Teague.

Lesson IV

Experimenting with Materials Used in Lettering

Aims: To appreciate lettering, past and present. To get information about the materials and how to use them.

Materials: Clay, wax, parchment, bark, wood, stone, glass, paper, stylus, reed or wood pen, ink, brush, paint, quill, chisel, linoleum, engraving tool, steel pen.

Procedure: What materials do we use in writing? Paper, pen, ink, pencil, blackboard, chalk. Brief reports on paper, pens, pencils, and comments by the teacher. Materials used by the ancients:

Reed pens, brush, stylus, papyrus, metal, wax, clay and tile. (Egyptians.)
Parchment, reed pens, wax, clay and metal. (Greeks and Romans.)
Quill pens (eighth century), paper.
Steel pens, glass pens.

Demonstrate the use of these materials and let students experiment with them. Show how a quill pen is cut and let students try to make one.

Lesson V

Learning Letter Construction

Aims: To appreciate lettering, past and present. To acquire knowledge of letter construction.

Materials: Paper, pencils, illustrations, pens, ink.
Procedure: Show charts of roman and modern alphabets.
Call attention to proportion:

1. Width to height.
2. Thickness of stem or stroke to height.

Optical illusion:

1. As to center (draw dividing line above middle).
2. Lower line must be longer than top line.
3. Round letters appear smaller than square letters.
4. Letters drawn in outline give a different effect than solid letters.

Shading:

1. Down stroke, heavy.
2. Horizontal stroke, light.

Have students copy a roman alphabet.

Lesson VI

Learning about Composition in Lettering

Aims: To appreciate lettering, past and present. To know how to arrange letters.
Materials: Illustrations, paper, pencils, pens, ink.
Procedure: Brief review of letter construction.
Show illustrations of composition.
Arrangement on page.
Spacing between letters.
Arrangement of titles.
Selection of appropriate style of lettering, according to purpose.
Pupils attempt short lettering composition.

Lesson VII

Planning How to Use Lettering

Aims: To appreciate lettering, past and present. To plan a piece of work, using lettering.

Materials: Same as in Lesson VI, plus a variety of qualities of paper.

Procedure: Short review on materials, construction, and composition. Teacher and pupils make suggestions for problems such as charts, monograms on book covers, greeting cards, booklet, composition. Let each pupil decide on the problem and materials he will need in carrying it to completion. Teacher demonstrates the construction of a folio and makes suggestions for lettering of its title.

Lesson VIII

Constructing a Lettering Folio

Aims: To appreciate lettering, past and present. To use lettering.

Materials: Craft paper, paste, brushes, scissors, rulers, paint. Sample of folio.

Procedure: Brief review of preceding lesson. Construction of folio. Lettering title for folio.

Lesson IX

Working on Problem

Aims: To appreciate lettering, past and present. To do creative work in lettering.

Materials: Same as Lesson VII.

Procedure: Pupils work on their problem, the teacher helping with suggestions when necessary.

Lesson X

Working on Problem

Continuation of Lesson IX. After the problem has been finished, the teacher announces that there will be an exhibition and criticism of the products for the next lesson.

Lesson XI

Finishing Problem

Completing the folio and its lettered title.

Lesson XII

Arranging the Exhibit of Products

Aim: To show knowledge of good arrangement.

Materials: Mounting boards, paste, thumbtacks.

Procedure: Pupils arrange exhibit, the teacher helping when needed.

Lesson XIII

Evaluating the Results

Aim: To discuss and evaluate results. Review principles of letter construction and composition in evaluating the exhibits.

6. *Ceramics*[1]

Stages of Development

Orientation

Aim: To awaken interest in ceramic products and to inform the student about the development of the craft from a primitive home industry in prehistoric times to a vast industrial enterprise entering widely into the make-up of the modern civilized world. To make a beginning of appreciation of fine ceramic ware, and of the forming of criteria for the choice of fitting and beautiful ceramic products in everyday life.

Lesson I. What We Know about Ceramics in Our Daily Life.

Lesson II. Pottery, an Ancient Art Which Is Up to Date.

First Optional Lesson. (A Saturday Trip.) A visit to a place where ceramic products are made or sold.

Design

Aim: To acquaint the student with the possibilities in tile and pottery design, and to give an opportunity for artistic expression in design on paper or directly in the plastic material. To foster discrimination in selection of pottery through an understanding

[1] By Laurence Leighton Williams, instructor in ceramics, Department of Occupational Therapy, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md.

of its design. To lay the foundation for an exposition of ceramic information, to be presented at the end of the unit.

Lesson III. Designing for Tiles and Pottery.

Lesson IV. Continuing Work on Designs and Experimenting with Designing for Tiles Directly in Clay.

Second Optional Lesson. (After School.) Making plaster molds for reproducing tiles, and casting plaster bats used in tile production.

Lesson V. Finishing Work on Designs and Learning about Porcelain.

Forming Products

Aim: To acquaint the students (potter's group) with plastic materials and to give them some insight into the problem of forming pottery by hand so that they can better appreciate the craftsmanship of the primitive potter.

Lesson VI. Making Bowl Forms by Hand. Making Tiles from Plaster Molds. Assembling the Material.

Third Optional Lesson. (After School.) Casting a plaster mold for making a bowl.

Lesson VII. Continuing Making Bowls and Tiles.

Fourth Optional Lesson. (After School.) Casting bowls with slip.

Appreciation

Lesson VIII. Judging the Finished Products before They Are Fired, and Planning the Firing.

Fifth Optional Lesson. (After School.) Casting more bowls.

Lesson IX. Mounting the Exhibit and Looking It Over.

Sixth Optional Lesson. (All-day Field Trip on Saturday.) Firing some of the pieces in an improvised kiln, out of doors.

Lesson X. Setting Up the Exhibit and Presenting the "Exposition of Ceramics" before an Audience. (Possibly another art or a science class.)

Conclusion: By the end of the unit, it is hoped that each pupil, either in regular lessons or in the extra after-school time, will have had actual contact with ceramic processes, and that each may have had an opportunity for creative effort in at least one

field. Each will have had a part in the gathering of general and technical information and in the arranging of the exhibit. Although the design and illustration of the exposition material has been the special work of a few, all will have a chance to help in playing host and telling the story of ceramics before an audience.

Lesson I

What We Know about Ceramics in Our Daily Life

Start the class by showing a piece of brick, a plate (china or crockery), a piece of glassware, and an earthen flowerpot or an Indian pot or bowl.

Questions and Answers

Who knows in what respects all these objects are alike? They are all man-made, all useful, all suited to life in the home, but there is a greater similarity. Think of what you know about how each is made. Baked, burned, fired, melted, made of clay, made of sand. Then they are alike in what way? Made of earth material, treated by heat.

Introduce here the word "ceramic" or "keramic" and tell that it expresses the similarity that has just been discovered, for to us it means "the product of the earth and fire," although the word itself has been applied variously to potters' clay, to a place in Greece where the potters worked. Of course, then the word was Greek—"keramos." What kinds of ceramics do you use or see every day? Several answers. Shall we list them on the blackboard? Yes.

When the list has grown to a good length, add those ceramic products which are not usually thought of and are so essential to our social and industrial life: electric insulators, especially for high-tension lines, electric underground conduit, spark plugs, sewer pipes, and sanitary fixtures. This brings in enamels fired or baked, on metal, both in sanitary ware and in other kinds of kitchen and laundry equipment, refrigerators and machinery, including automobiles. Firebrick and refractor materials may also be mentioned, without which much school work would be

impossible and many kinds of home heating including gas and oil would not have been developed.

Assign certain pupils to copy these lists, or parts of them, breaking them down into use areas: the home, the school, the church, recreation and sports, civic life. One pupil or group may take each topic. Encourage some further observation and study on these lists outside of class, and ask for sketches and illustrative material to be brought in on these topics for the next lesson.

Pass out pictures of tiles and pottery, which are among the oldest forms of ceramics and are most suitable for further study by the class. Encourage the study of these pictures and the starting of sketches of interesting items. Call attention particularly to the uses of tile in the town and in the homes of the pupils. You have all seen tiles, and most of you have seen these pictures which are being passed around. Have you any idea why tiles or glazed bricks were invented? No doubt, to make buildings more beautiful, but that may not be the main reason. Tiles are not much affected by weather conditions; in fact, clay that has been fired stands a chance of being more nearly imperishable than anything else, even the rocks themselves, for the clay is a part of the rocks either washed away by the action of water and deposited or left behind while other elements in the rocks were dissolved and carried away. Sun-baked bricks, which were the usual building material of ancient Babylon, were no more than dried clay and were subject to erosion. Tiles, or fired bricks, were used as an outer coating on buildings as much to keep them from washing away as to decorate them.

Assign to someone especially interested in geography a report on clays and their distribution—to be given in next lesson—and to others the collection of illustrated material or sketches of ceramic products. Mention, without stressing it, that two other important ceramic ingredients are feldspar, containing a flux, and silica, in the form of crushed quartz and flint.

Call for a summary of the discussion and supplement, if necessary. Ceramics form a vital part, are almost a major part, of the civilized world's equipment. Without them, little of today's life could be carried on as it now is. Steel and other

metals could not be so easily produced and worked, the transmission of electric current would be much restricted, electric lights would be impossible perhaps, and buildings would be far different in structure and decoration. Ceramic products are nearly always useful, but many of them have distinct and distinctive art qualities.

Lesson II

Pottery, an Ancient Art That Is Up to Date

Call first for the report on clays and bring out that wherever the natural clay was easily workable and a good fuel supply was available, there you might expect to find pottery—even among the most primitive people today, or dating back to prehistoric times, the days of the later cave men.

Show pictures or slides developing the theme of antiquity of pottery and of its development from a hand process through the first crude potter's wheel to the heights of shapeliness in the Greek and Chinese wares, bringing out the changes which improved equipment made in the form of the pieces turned out, and the further improvements or changes which speed of production demanded as man's needs for utensils increased—motor-driven potters' wheels, molding in wood or iron—to the introduction of plaster of Paris and the development of slip casting.

Illustrate with lantern slides the changes which parallel this in the production of brick and tile. Conclude the picture talk with views of the pottery and the tile industry of today, where the ancient potter's wheel, hardly changed, may still take its place unchallenged beside the latest methods of pressing forms out of an almost dry powder mixture which will fire into fine ceramic wares, both domestic and industrial. Point out the importance of the industrial designer when products may be made in such multiplicity so fast. Give out catalogues of pottery and tile concerns so that the pupils may see that some firms are attempting to make their products good looking and up to date, while others are still turning out products that are bad in design.

Now that we have seen the development of the art and the industry briefly illustrated, do you think we are on the right

trail in our collection of materials for our exposition? Would someone like to undertake getting material for a chart, showing something of the history of ceramics? When someone volunteers to answer, let there be a general revision of topics to care for this phase; in any event, appoint a committee of organization to see that the field of ceramics is well covered in the collection of material. Plan a trip to either a ceramic factory or a place where several kinds of pottery or tiles are on display—store, contractor's office, or museum. If sufficient interest has been aroused, plan with the class for a number of after-school lessons, attendance at which should be noncompulsory, in which to carry on phases of the production of tile, supplemental to the work being carried on in class.

Lesson III

Designing for Tiles and Pottery

Describe methods of designing for allover patterns in tiles, showing the use of the mirror to increase the apparent area or to reverse a pattern. Tell about mounting boards for the laying out of modern mosaic tile floors, many of the patterns of which are based on squares in regular order. Point out that the greatest possibilities for design lie in this form of the commercial "ceramic" tile. Pass around catalogues of floor and wall tile. Discuss allover tile patterns made up of designs of large tiles, and show pictures of antique installations, particularly in Persia, Spain, and Holland.

Show pictures, charts, films, and actual pieces of pottery, giving shapes and decoration, especially on flat dishes and bowls. Point out, or bring out by questioning, that in many cases the shape of the pottery is accentuated and explained by the decoration. Let the pupils discover that this is not always so, that, when cleverness in handling the material increases, "decorative" forms that deny the structure of the object may ruin the design. Ask for opinions as to the relative merits of pictorial and abstract decoration, and if necessary state your own, merely as your opinion, not as law.

Demonstrate the sketching of a silhouette of a vase or bowl form, using a center line, and explain cutting a template for one half of the form, so that in construction one may be sure to make the form symmetrical and like the design.

Divide the class into three groups: tile designers, potters (dish and bowl designers), and research workers. Let the tile designers design for individual tiles, tile mosaic patterns, or tile group patterns, all of which are to be worked out first on paper. Have the potters make studies of shapes and decoration for bowls and dishes, with some vase forms. Those who do plates or dishes may plan to execute their designs in color on paper plates. Colors chosen will be in keeping with the design types, and strong colors will not be barred at first, for glaze limitations will not yet have been brought out. The research workers' group need not include all the organization committee, but be in part composed of its members. Ask the research group to cooperate with the organizers in completing the story of ceramics, making sure that at least one member of the group looks up and reports something about glazes. The researchers may now begin the sorting and labeling of material for the exhibit.

In summation, which should come before the design work has progressed far, try to elicit a résumé of the design principles brought out at the start. The following are particularly applicable to pottery:

1. Fitness to use.
2. Relation between form and method of production.
3. Relation between form and decoration.

Tile and mosaic decorations will call more for:

1. Repetition.
2. Alternation.
3. Balance in spacing.
4. Color balance.

Questions and Answers

Which may be the most important feature of a tile mosaic design, when it is to be factory made? Size of repeat fitted to tile mounting board. May this repeat be only part of a design composed of several "boards" or sheets of mounted tile? Yes.

What relation between the design features—repetition, alternation, balance, and color balance—should we expect in a good tile floor? Balance—and in particular good color balance—no "holes" in the floor. In pottery, what should be a first design consideration? Shape—use. A piece of pottery was once a lump of clay—it is the skill of the craftsman and the art quality of his design, as much as the fire, that makes that clay increase in value, and in some cases to become almost priceless.

Lesson IV

Continuing Work on Designs and Experimenting with Designing for Tiles Directly in Clay

Demonstrate "wedging" by cutting a lump of potter's clay with a wire and slamming the cut pieces one on top of the other and cutting again. The cut pieces should be thrown on a thick table covered with cloth, or better yet upon a slab of plaster about 1½ inches thick. Let the pupils see that this works out any air bubbles in the clay and improves its texture. Finally, beat the clay down and roll it to about ¾-inch thickness. In marking out the squares, you may use a pattern of cardboard or stencil paper, and mention of shrinkage should be made. Using a spatula or a wire, mark it off into squares—4⅔ by 4⅔ inches (this will allow for 10 per cent shrinkage and give a tile about 4¼ by 4¼ inches, which is a standard tile size).

Decorate some of the tiles directly with finger or stylus, others by cutting away the background with a modeling tool, leaving a raised pattern. The imprint of various objects or of previously prepared plaster forms may also be used and the tile surfaces and edges smoothed up with a dampened finger. Anyone who wishes should be allowed to wedge more clay and prepare additional tiles, which may be apportioned to members of the class for the application of decoration as experiments.

Do you think this is the usual way of making tiles in a factory? No. Why not? It takes too long. It is impossible to make two alike. Yes, it is true that this is not what could be called a factory production method. Some establishments have similar methods of handwork which, though speeded up, nevertheless

have all the rough qualities of this type of handwork. Show pictures of Mercer tiles and mention the floor in the state capital at Harrisburg, Pa., which is made of them. Show also some other tiles or pictures of them, and the processes used such as plaster, press molds, steel dies, or other means of speeding up production.

Those students who have pottery designs in process should return to work on them as soon as they have had a chance to watch the makers a little while, for their best opportunities to handle the clay are coming later. The research workers will need to try some of the clay processes to get the feel of its plasticity.

The tile workers should continue working directly in the clay, using patterns made on paper previously. Some patterns of large, simple areas may be cut into the surface of the clay, leaving a raised background of about ⅛ inch. Others may be left raised by cutting away the background, or by pressing it down; these should be finished without overhanging edges on any part so that they may be cast in plaster to make press molds.

Some students with pictorial designs may want to continue working on them, and trace them onto ½-inch thick slabs of plaster of Paris so that a mold may be carved. This is done by slightly incising all the lines.

Put the tiles away in damp cloths for further work next time, calling attention of the class to outstanding results in finish, design or originality, and suitability for reproduction. Multiply the effect of some with mirrors to see if a pleasing allover pattern will result from continuing the work. Call for criticisms from the class while this is in process.

Lesson V

Finishing Work on Designs and Learning about Porcelain

Those whose designs are incomplete should be permitted to continue work on them during this lesson. Much of what they are doing can be continued while they hear something of what is being said in class. Some will be working on paper, some carving plaster, and others working directly on clay tiles.

Show examples of chinaware, especially broken pieces, so that differences in the composition of the body may be seen. One piece should be true hard porcelain, vitrified and translucent, and one at least of bone china, a softer, nonvitrified product. For contrast, there should be a piece of white-bodied ware with an opaque glaze.

Questions and Answers

All these pieces of broken dishes look somewhat alike. Who can discover some differences between them? You can almost see through this one. Here's another that you can see light through. This one is thick and soft looking inside. This one looks something like glass on the edge. What is the name we give to dishes of this kind? Chinaware—tableware. Why do we call it china? The Chinese first made it. All the pieces we have here were made in Europe or America in imitation of the dishes which early began to come from the Orient into Europe. Some think that the Venetians first brought white translucent ware—porcelain—into Europe, others give the Portuguese the credit. Chinese workers made their products in Persia, so that there are many pieces of ancient Persian pottery that show the influence of the Near East in their design and decoration. In Europe the method of Chinese manufacture remained for a long time unknown, although many attempts were made to reproduce it.

Develop here, with pictures or objects, an understanding of the attempts to make porcelain in Europe, resulting in the "soft porcelain" of which Sèvres is an example; in "bone" china in England; and finally in true porcelain in Germany, through the accidental discovery by the alchemist and potter, Böttger, in 1710 of a white burning plastic clay, in the powder that was used for his wig. This was caolin, a clay like that used in China. Finally the secret leaked out, and porcelain became more common throughout the world. Today it is important in the world because of its beauty and because of its strength and its resistance to electricity. Conclude the lesson by showing industrial porcelain products including dishes, spark plugs, and other electrical fixtures.

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